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# **Analysing Media Analytics Tools for Foreign Policy Monitoring: A Comparative Assessment of Methodological Approaches**

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**Experimental Design,  
Methodology and Outputs for  
Detecting Foreign Policy Discourses**



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# **Analysing Media Analytics Tools for Foreign Policy Monitoring: A Comparative Assessment of Methodological Approaches**

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## **Executive Summary**

This exploratory research presents key findings regarding media coverage and media monitoring of foreign policy, foreign affairs and international relations. It should be noted that we found that monitoring of media content in general, including related past and recent research projects in the areas of foreign affairs and international relations, has been widespread, but the successful monitoring of media content for the purpose of revealing emerging foreign policy in particular was not found in the research. Therefore, the research could not directly answer the question of what are the methodological challenges associated with using media monitoring tools to identify emerging foreign policy. Nonetheless, our research reveals inconsistencies in algorithmic dependability, coding biases, and data collection and interpretation issues in current media monitoring tools. The study also compares media monitoring and analytics tools, identifies gaps in their methodologies, and provides policy recommendations for finding paths to effective foreign policy monitoring. Moreover, our exploratory analysis revealed that the EU or other entities (typically USA, exceptionally e.g. Switzerland) have financed different large-scale media monitoring permanent projects like the Europe Media Monitor Programme (EMM, continuously funded by the EU), or long-term projects (FAST International, the early warning programme of Switzerland) and *ad hoc* projects like SUMMA (funded by the EU), as well as mid-scale media monitoring projects (e.g. Senti One, Determ, both co-funded or initially funded by the EU), or local (Slovakia) projects financed from the EU sources (MNSight, funded indirectly by the EU). However, their follow-up implementation and development (if any) have been limited in transparency and has produced inconsistent findings, or resulted in lack of progress. This highlights the need for better-planned and efficient institutional policies related to cost-effective assessment and follow-up utilisation and coordination of numerous research projects and initiatives.

The study also identified significant media coverage gaps for niche events and news items, as well as in general inconsistent events and issues coverage as identified when using different media content monitoring tools and sources. This deficiency frequently arises because of insufficient quality of available monitoring tools, revealing algorithmic and, if relevant, coding and interpretation issues with large data coverage based on currently available tools. This leads to unreliable insights for policy decision-making. Apparently, in spite of generous (SUMMA) or long-term funding (EMM), and allegedly excellent previous results as reported e.g. by SUMMA and MNSight projects, there is no reliable legacy media

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<sup>1</sup> Reviewers included Dr Andreas Anastasiou, School of Arts, Media and Communication, Leicester, United Kingdom; Dr Nenad Stekić, Institute of International Politics and Economics, Belgrade, Serbia and Dr Karol Szulc, University of Wrocław, Wrocław, Poland.

monitoring tool that could serve for consistent and reliable monitoring media outputs in general, and with focus on foreign policies in particular.

There are numerous private online media content monitoring and analytics tools, possibly hundreds, though only a minority cover legacy media. Our analysis provides a comprehensive review of many of these tools. However, it lacks coverage of e.g. Chinese media monitoring tools and, with one exception, Russian ones.

Moreover, a significant finding indicates different ways researchers and journalists seek and utilise these sources (sometimes without considering their methodological limitations), and provide expertise based on them, emphasizing the need for improved integration of different approaches and cautions when interpreting such outputs.

Researchers and monitoring tool operators often overstate the significance of their findings while downplaying or overlooking critical issues such as source and tool reliability. This undermines comparability and hinders the ability to draw reliable conclusions about ongoing progress.

Ironically, journalists whose work relies on the willingness of others to share information and knowledge, are themselves reluctant to share their knowledge. The most negative example was set by journalists from Ireland.

Furthermore, the study reveals a possible gap of dissenting voices among recognized European diplomacy and international affairs experts. Although this issue will be more explored in the next phase of our research, it should be already taken seriously.

The study highlights a well-known but often overlooked truth: timing is crucial in foreign policy communications. Policymakers and diplomats who respond swiftly increase the likelihood that the media will cover their perspectives.

Our research has identified different areas for methodological improvement, specifically in survey design and data collection. Future research might benefit from more thorough reliability assessments of media sources and comprehensive questionnaire designs. However, there are caveats such as copyright legislation that hinders or at least complicates the utilisation of globally available online news sources.

Overall, this research sets the groundwork for understanding the intricate interactions between media coverage, research, foreign policy, and institutional responses in the European setting. It highlights the importance of incorporating diverse perspectives in foreign policy monitoring and analytics and advocates for more holistic approaches to media content analysis, as outlined in the policy recommendations.

Despite the challenges identified, the key lesson from this pilot study is that the only reliable way to assess the effectiveness of media monitoring tools in any field is to assign identical specific tasks to their creators or managers and then compare the results. To come to such simple finding, however, first requires producing an overview such as this one. Notably, the most we managed to get from contacted private projects and tools through experiments and communication, were outputs based on sentiment analysis or frequency of mentions. This is obviously an insufficient information result for a comprehensive media monitoring of emerging foreign policies. Often, there was silence or contradictory information provided by researchers from publicly funded projects. Therefore, this report underscores the need for advancements in foreign policy monitoring and analysis while remaining sceptical about the effectiveness of automated monitoring, analytical and detection tools (with an exception of some partial tasks such as automated abstracts productions) without substantial human oversight.

## Zhrnutie výskumu

Tento sondážny (prieskumný) výskum predstavuje kľúčové zistenia týkajúce sa mediálneho pokrytia a monitorovania, ako aj analýzy mediálneho obsahu v rôznych oblastiach medzinárodných vzťahov a zahraničnej politiky. Treba upresniť, že monitorovanie obsahu médií, vrátane snáh o interpretáciu výsledkov, v rôznych oblastiach zahraničnopolitického diania a medzinárodných vzťahov, je a bolo rozšírené, ale samotné úspešné monitorovanie obsahu médií za účelom odhalenia vznikajúcej alebo meniacej sa zahraničnej politiky nebolo zistené vo výskume. Preto výskum nemohol priamo zodpovedať na otázku, aké sú metodologické výzvy spojené s využitím mediálneho monitoringu za účelom identifikovania vznikajúcej zahraničnej politiky. Naša prieskumná analýza ale odhalila, že EÚ alebo iné subjekty (zvyčajne USA, výnimočne Švajčiarsko) financovali rôzne rozsiahle dlhodobšie projekty monitorovania obsahu médií, ako je program Europe Media Monitor Program (EMM, priebežne financovaný EÚ) alebo FAST International, program včasného varovania Švajčiarska, a *ad hoc* veľké projekty ako SUMMA (výskumný projekt financovaný EÚ), ako aj o niečo menej podporené projekty monitorovania obsahu médií ako boli projekty Senti One, Determ (dnes súkromné projekty, ktoré pôvodne spolufinancovala EÚ), alebo miestne (Slovensko) projekty financované zo zdrojov EÚ (MNSight, nepriamo financované EÚ). Ich následná implementácia mala obmedzenú transparentnosť a viedla k nekonzistentným zisteniam alebo priniesla nedostatočný následný pokrok. To zdôrazňuje potrebu lepšie naplánovaných a účinných inštitucionálnych politík súvisiacich s nákladovo efektívnym hodnotením a následným využívaním a koordináciou mnohých výskumných projektov a iniciatív.

Štúdia tiež identifikovala významné medzery v mediálnom pokrytí pre okrajové udalosti a miestne spravodajstvo, ako aj vo všeobecnosti nekonzistentné pokrytie udalostí a tém, ako sa zistilo pri použití rôznych monitorovacích nástrojov a zdrojov. Tento nedostatok často vzniká z dôvodu nedostatočnej kvality dostupných monitorovacích nástrojov, čo odhaľuje problémy s algoritmami, a ak je to relevantné, súvisí aj s (ne)konzistentným kódovaním a interpretáciou pri veľkom pokrytí údajov na základe v súčasnosti dostupných nástrojov. Napriek štedrému (SUMMA) alebo dlhodobému financovaniu (EMM) a údajne výborným predchádzajúcim výsledkom, ako sa uvádza napr. pri projektoch SUMMA a MNSight, neexistuje spoľahlivý nástroj na monitorovanie obsahu médií, ktorý by mohol slúžiť na konzistentné a spoľahlivé monitorovanie mediálnych výstupov vo všeobecnosti, a najmä so zameraním na zahraničnú politiku.

Existujú dostupné desiatky, ak nie stovky súkromných online nástrojov na monitorovanie obsahu spravodajstva médií, z ktorých iba menšina pokrýva klasické médiá. Ponúkame pomerne rozsiahlu analýzu mnohých z nich. V našej analýze nám však chýbajú napríklad čínske a ruské (až na jednu výnimku) nástroje na monitorovanie médií.

Okrem toho významné zistenie naznačuje rôzne spôsoby, akými výskumníci a novinári vyhľadávajú a využívajú tieto zdroje a nástroje (niekedy bez ohľadu na ich metodologické obmedzenia) a poskytujú na nich založené profesionálne služby, pričom štúdia zdôrazňuje potrebu lepšej a (seba)kritickej integrácie rôznych prístupov, nástrojov a zdrojov pri interpretácii takýchto výstupov. Výskumníci a operátori online monitorovacích nástrojov majú tendenciu zveličovať dôležitosť svojich zistení, alebo úspešnosť svojich nástrojov, pričom často bagatelizujú alebo ignorujú kritické otázky, ako je spoľahlivosť ich zdrojov alebo nástrojov. To komplikuje porovnávanie, ako aj schopnosť vyvodzovať spoľahlivé závery o prebiehajúcom pokroku.

Je iróniou, že novinári, ktorí zakladajú svoju činnosť na ochote iných zdieľať informácie a poznatky, sa sami zdráhajú podeliť sa o svoje znalosti. Najnegatívnejším príkladom sú novinári z Írska.

Štúdia okrem toho odhaľuje negatívny dopad možného faktora absencie odlišných názorov medzi politikmi, diplomatmi, a odborníkmi na medzinárodné záležitosti. Aj keď bude táto problematika podrobnejšie preskúmaná v ďalšej fáze nášho výskumu, chýbajúce nesúhlasné hlasy pri tvorbe politik by sa mali brať vážne.

Štúdia dáva do popredia známu, no často zabudnutú pravdu – načasovanie je v zahraničnopolitickej komunikácii rozhodujúce. Politici a diplomati, ktorí rýchlo reagujú, zvyšujú možnosť, že médiá budú pokrývať ich názory.

Náš výskum identifikoval rôzne oblasti s potenciálom metodologického zlepšenia, konkrétne pri kreovaní obsahu a štruktúry dotazníkov a zhromažďovaní údajov. Budúcemu výskumu by mohli prospieť dôkladnejšie hodnotenia spoľahlivosti a objektívnosti používaných mediálnych zdrojov a precíznejšie naformulované dotazníky, vychádzajúce z kritického vyhodnotenia dostupných teórií. Existujú však aj právne výhrady, ako napríklad legislatíva v oblasti autorských práv, ktorá bráni alebo aspoň komplikuje využívanie celosvetovo dostupných zdrojov online správ.

Celkovo tento výskum vytvára základ pre pochopenie zložitých interakcií medzi mediálnym pokrytím, činnosťou expertov, zahraničnopolitickým dianím a inštitucionálnymi reakciami v európskom prostredí. Zdôrazňuje význam zachovania rôznych perspektív v diskusii o monitorovaní zahraničnopolitického diania všeobecne a zahraničnej politiky špecificky, a holistickejších prístupov k monitorovaniu a analýze obsahu médií, ako je opísané v metodicko-politických odporúčaniach.

Napriek identifikovaným výzvam je kľúčovým ponaučením z tejto pilotnej štúdie, že jediným spoľahlivým spôsobom, ako posúdiť účinnosť nástrojov na monitorovanie obsahu médií v akejkoľvek oblasti, je prideliť identické špecifické úlohy tvorcom alebo manažérom online monitorovacích nástrojov a potom porovnať výsledky. Na to, aby sme dospeli k takémuto možno jednoduchému zisteniu však bolo potrebné najskôr vytvoriť prehľad, ako je tento. Treba spomenúť, že maximum, čo sa nám z oslovených súkromných projektov a nástrojov prostredníctvom experimentov a komunikácie podarilo získať, boli výstupy založené na analýze sentimentu či frekvencii zmienok. To je zjavne nedostatočný informačný výsledok pre komplexný mediálny monitoring dynamicky sa vytvárajúceho zahraničnopolitického diania. Z verejne financovaných projektov sme často nedostali žiadnu odozvu alebo boli poskytnuté protichodné informácie. Správa preto vyzýva na pokrok v tejto kľúčovej oblasti monitorovania a analýzy zahraničnopolitického diania a zahraničnej politiky, aj keď zostáva skeptická, pokiaľ ide o širšie možnosti automatizovaného monitorovania a využitie detekčných a analytických nástrojov bez následného rozsiahleho zapojenia ľudského prvku.

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\* Figure is generated by AI - Chat GPT

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## Key Findings

- In spite considerable investment in financial resources and research aimed at creating effective legacy media content monitoring tools, and to a lesser extent, identifying appropriate legacy media sources in the USA, EU, and countries like Switzerland, a truly reliable and current monitoring tool, especially for foreign policy, remains unavailable.
- Worryingly, a few identified, directly or indirectly, ad hoc or permanently, by the EU funded projects, ultimately seem to result in limbo. It is questionable how scientifically-, or practically- relevant can be seen their outputs, usually assessed as delivering excellent results.
- At the same time, the international situation has deteriorated in recent years, with low prospects to returning into previous status. Therefore, careful monitoring of emerging and changing foreign policies in legacy media globally seems to be an urgent task. This can finely supplement other sources of analyses and information available (if at all). It is without question that the EU Member States should use synergy of their efforts precisely in this way.
- However, AI and ML, with all its hype, can not solve this issue alone. It is still open question whether the most recent large reasoning models (LRMs), that are specially trained to perform certain types of reasoning, can help here. Instead, carefully selected and trained intelligence type analysts, supported with AI- and ML-based monitoring tools, and with researchers in background providing conceptual materials and critical feedback, can be seen as a solution. Cooperation with private sector may provide a critical advantage and access to the cutting edge experience.

## Policy and Research Recommendations

Based on the extensive exploratory review of past and current projects, tools, sources, and methods used for content monitoring of legacy media, and considering the current status of selected pan-European or national media monitoring systems within the EU, we propose implementing comprehensive policy and research measures to improve the monitoring, detection, analysis, and response to rising foreign policy trends. It is obvious that although much needed, such complex and reliable media monitoring system is missing. On the one hand, synergy effort of the common European project should provide natural motivation for cooperation and leadership in this area. On the other hand, international politics has rapidly deteriorated in recent years and there is little hope to return to previous international standards. Technological advances, supported with meticulously selected and trained analysts, may allow rather complex intellectual projects to materialise, and thus to offset negative developments in international politics.

The following recommendations prioritize methodological improvements, institutional and personal capacity building or strengthening, and foremost synergy efforts, including efficient utilisation of research sources and outputs, and strategic communication enhancements.<sup>2</sup>

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<sup>2</sup> As put by reviewer Anastasiou (2025, personal communication), “*I would only like to explicitly underline the need for inclusion of a qualitative component in the proposed mega-project of analysing Foreign Policy and International Relations trends through monitoring global news media. Furthermore, I would also add that, while such project can only be realised by securing significant funding, its credibility would greatly depend on its independence from governmental or inter-governmental (national or EU) control. The Worlds of*

**1.** We recommend **establishing a permanent interdisciplinary virtual or cross-border team** including professionals in political science, discourse analysis, AI/ML, including large language models (LLM) and large reasoning models (LRMs), forecasting, computational linguistics, policy relevant items and event extraction classification methods, big data mining, communications, journalism, and diplomacy. This interdisciplinary team (about 15-20 core members) should comprise experts who have already conducted similar research or are regularly acknowledged in the field to ensure a mix of theoretical expertise and practical experience. Ideally, the selection process should highlight professionals with past expertise in cross-border collaboration and multidisciplinary research. Selection of researchers should be based primarily on the pool of available experts across the EU and beyond (academia, private and semi-public research organisations and individual experts). For example, EU platforms such as the European Union Institute for Security Studies (EUISS), The Intelligence Analysis and Situation Centre of the European Union (EU INTCEN), the Europe Media Monitor (EMM) or Joint Research Centre of the EU could potentially serve as suitable institutional host or coordinator. An incomplete list of additional tentative institutional candidates is provided in the footnote.<sup>3</sup> However, this is not to suggest that either of these institutions is currently ready or interested to lead from the perspective of professional expertise in this particular field.

It should be mentioned that for the final country- or topic-specific regular analyses, global selection of analysts ought to be done differently, prioritising their natural analytical abilities based on specific common cognitive approaches. In other words, these analysts may not be scientists or a “PhD” holders.

**1.1** The team will be tasked with **coordinating the development of comprehensive research and policy strategies for detecting new foreign policy trends in legacy media**. This includes developing or adjusting standardized trend detection methodologies, tools and sources, for recognizing emerging and significant policy moves as well as identifying more subtle but publicly available signals, and reliable protocols for close to real-time media coverage analysis. Moreover, it should include **specific standards and protocols for selection and training of analysts** who will be engaged in regular monitoring and analyses of foreign policy trends.

**1.2** The team should prioritize integrating **AI-powered and ML analysis tools**, including large reasoning models (LRMs), **with human expertise**, as it is already common practice in the industry. It might be a reasonable and cost-effective strategy to pool research efforts with one of the many private subjects on the market. For that purpose, this exploratory study suggests a few suitable options, too.

**2.** Prior that, **thorough review of previously funded research projects in the field should be carried out, with specific focus on learning from failures and mistakes, and examining the deeper reasons for the lack of further continuation and development of these projects and initiatives**. At present, this area remains a black box. The current overview can serve as a starting point for delivering this necessary output. It is concerning that despite significant EU investments (or, for that purpose, US or Swiss investments) - amounting to millions of euros - many, if not all of these projects have either failed or

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*Journalism project is an example of good such practice, though serving a different purpose from the one that is the subject of this report.”*

<sup>3</sup> <https://www.eufp.eu/other-centres>

stagnated over time. We suggest conducting an official inquiry or audit (by national authorities, or the European Commission designated relevant authority) into questionable EU-funded or supported media content monitoring tools.

**3.** One of the first relatively easy steps that may be seen as having immediate, long-term practical potential for foreign service professionals as well as for researchers in general, is to **enhance current systems for detecting bias and identifying quality newsreporting**, using the Ad Fontes Media approach, enhanced by the most recent scholarship (cited in the text). This effort should include the creation of a list of legacy media focused on foreign policy coverage, including categorising them based on their ideological leanings and qualitative biases - tailored to international relations reporting, and ongoing calibration of monitoring criteria in response to evolving media trends. We propose establishing clear standards for assessing media quality and bias, incorporating factors such as source reliability, factual accuracy, editorial independence, and ownership transparency. For more details, we refer to recent and detailed systemic review papers. The assessment framework should be revised regularly to reflect shifting media landscapes and new forms of media bias. The current methods for automatic media bias detection are still in their infancy.

**4.** Another significant recommendation of our research is **to monitor changes in news selection and coverage trends**. This task includes analyzing how different media organizations or journalists prioritize foreign policy issues, exploring the effects of resource allocation on coverage depth, and identifying gaps in present reporting standards. Special emphasis should be placed on the impact of digital media on traditional foreign policy coverage.

We should also focus on assessing the reliability and consumption patterns of various information sources. This examination should examine journalists' preferred sources, verification techniques, and how time restrictions affect source selection. It should also compare the role of official and unofficial sources in developing foreign policy narratives. Following similar lines, based on our prototype questionnaires and our initial mailing lists, we suggest conducting a more comprehensive global and perhaps regular survey among journalists covering foreign affairs (either as reporters, commentators, or editors). This could fulfill multiple functions.

First, it would show which sources journalists use, how often, and how useful/essential and reliable these sources are considered by them.

Second, it would show possibly ever-changing, culturally or regionally different, by technological developments impacted, implicit and explicit selection news criteria and news values in foreign coverage.

All this could help to create proper strategies for considerable data extraction and elaboration from media content monitoring. Moreover, foreign service and ministries of foreign/international relations could better understand up-to-date values, motivations, and principles of work by journalists covering foreign affairs.

**5.** In the final phase, the goal is to establish a dedicated **European media monitoring system for foreign policy coverage and analysis**. Using AI/ML, and LRMs, it should help researchers to identify emerging foreign policy changes between states (e.g. Pakistan versus India), towards individual EU Member States (e.g. an African state towards France), towards the EU (e.g. USA policy changes towards EU), and among blocks of states towards other states (e.g. BRICS against the EU). It could be possible to identify foreign policy of a EU



Member States towards other EU Member States or towards the EU as entity (e.g. Hungary's policy towards the EU).

The system and hub should support different languages (there is no problem using automated translations for most languages), cross-reference various media sources, and offer notifications for emerging policy-related reports. It should also offer tools and methods for examining social media impacts on traditional media coverage.

To enhance validity and reliability of, by definition, tentative findings, consultations with local and international experts and sources (journalists, diplomats, researchers), will be required. Hundreds of co-workers globally will be needed, but these are already available. It is essential to have at least one bright mind (an unconventional thinker - thinking outside the box) for each country or topic. As mentioned, this may not be a scientist. In fact, a specific cognitive approach is needed, as discussed in the text.

**6.** Even if the above measures and strategies are not eventually implemented, we recommend strengthening collaboration within the EU and beyond, and improving interactions and consultations among key stakeholders in foreign policy as follows:

**6.1 A shared resource database** (it is to be decided about management and access rights) **should be established** (including selected in depth journalistic reports from abroad), and cooperative training programs should be implemented to familiarize diplomats with the changing journalism environments.

Optionally, with the aim to improve or just to test **professional competences of journalists to evaluate and interpret often contradictory and incomplete information, usually under time pressure, a specific programme or training for foreign reporters**, can be established. There are some recent unsuccessful attempts that can serve as an inspiration for developing a more comprehensive media content monitoring tool.<sup>4</sup>

**6.2** Moreover, we recommend establishing **regular online and offline forums** for selected participants (in countries where this is not yet custom), to achieve engagement among journalists, scholars, diplomats and policymakers. These pan-European collaborative competency groups should facilitate knowledge exchange and the creation of new ideas. These groups should concentrate on specialized areas of foreign policy coverage, including local crisis reporting, long-term policy analysis, and regional conflict solutions. They should hold regular meetings and present joint findings and recommendations. Crucially, they should include dissenting voices and fresh voices, to avoid closed thinking.

**6.3** Furthermore, we recommend creating **rapid-response communication strategies** to address unfolding international events. Such protocols and teams should include explicit verification rules, authorization chains to enable speedy answers, and templates for different types of policy statements. They should also define the roles and tasks of all stakeholders throughout crises, mostly based on existing communication protocols.

**6.4** We also recommend adopting a strategic approach to **exclusive information sharing with specific news outlets** (both at national level and at the EU level). This strategy should be founded on clear outlet selection criteria, transparent standards for information sharing,

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<sup>4</sup> <https://meteor.opted.eu/guides/newssource>

and follow-up efficient communication processes to ensure broad dissemination following initial exclusive sharing.

Relatedly, it is recommended to create mechanisms **to address coverage gaps in important niche events and localities** (e.g Gaza). This further involves developing specialized reporting networks for underreported areas, establishing funding mechanisms for in-depth coverage of potentially crucial but less prominent issues and areas, and creating platforms for sharing expertise on niche topics.

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# 1. Introduction

This is the first part of the research that is focused on critically reviewing methodologies, sources and tools used, or potentially aimed to be used, for monitoring foreign policy coverage in the (primarily legacy or traditional) media. While earlier research examined the specific media monitoring tools, there has been no systematic comparison or even individual assessment of their efficiency in monitoring emerging foreign policy. The study addresses a crucial gap in our understanding of how foreign policy monitoring is (or could be) conducted, evaluated, and potentially improved. It focuses on key – broadly understood – methodologies, projects and tools relevant to foreign policy monitoring to enhance clarity. It is a part of a larger research that addresses challenges in the field of foreign policies of the European Union (EU). Therefore, this introduction tackles both partial and complex issues that are relevant to our full research, and that are farther discussed either in this report or in follow up volumes. This report also represents a literature review or exploratory research, if one considers that there is no identifiable and accessible research on this complex topic. For the same reason, as exploratory research, it is tackling many overlapping issues. Therefore, we acknowledge that the text may seem to be challenging to a reader unfamiliar with topics spanning from journalism to media monitoring and then to subsequent foreign policy analysis.

Let us first explore some basic definitions and terms, and background knowledge. Foreign policy is understood as the entirety of governmental actions that a state undertakes in order to *“realize its fundamental interests [...] with respect to its international environment”* (Gareis, 2006, p. 9, cited in Schulz, 2013, 9).

*“Process of “communicative border-crossing”, facilitated by national journalism, is commonly termed ‘foreign coverage’”* (Hafez & Grüne, 2022, p. 21, cited in Santos and Cazzamatta, 2024, n.p.).

However, the question is to what extent open source can reveal such trends and subtle changes in foreign policy, especially in authoritarian and totalitarian societies. This issue is going to be dealt with farther on. Yet, it can be mentioned that *“ideas have consequences”*, as put famously by Richard M. Weaver more than 70 years ago.

Moreover, war starts with propaganda that tries not only to justify the war, or conflict in general, but also in long-term, to dehumanise and even demonise the enemy. Words or ideas in general are before deeds as a kind of self-fulfilling prophecy.

Keeping this in mind, it should be specified that we aim in this part at three key groups of actors: (1) journalists and media professionals (treated here as a single group, though differences exist analytically), (2) foreign policy analysts (including think tank members), and (3) diplomats (broadly defined to include staff working at ministries of foreign or international affairs, MFAs). It is assumed here that these three main broad groups of actors/stakeholders mutually (but to different degrees) influence and shape foreign policy understanding, formulation and execution at the level of state and international actors and (mostly indirectly) among the population at large. It is essential to explore whether their methodologies or approaches and tools are designed to monitor media coverage of tacitly emerging foreign policies (as well as events happening abroad with potential foreign policy implications at a lower or primary level of analysis) via the media are sufficiently developed to produce reliable results. Although “geography-wide” focuses on Europe, specifically the EU, this research is ultimately global. The content was organized into well-defined sections with quick transitions for enhanced readability and coherence. Social media monitoring methodologies have been left out of the analysis to allow deeper research focus. However, as

it will be discussed further, social media monitoring methods and tools are usually part of modern approaches designed for monitoring messages (including video and images/pictures) in general. Similarly, due to the need for specialization and in-depth analysis, we do not discuss here digital diplomacy, including its sub-branches (e.g. 'Twiplomacy' or 'Facebook Diplomacy'), although these are increasingly essential communication channels (c.f. Reshetnikova and Samokhina, 2023; Spry, 2022; Manor and Crilley, 2022). Social media, particularly Facebook, Twitter - now X, and Instagram, are used by foreign policymakers to communicate more easily with their counterparts (c.f. Plesa, 2020).

For the same reasons, discussion about the production of linguistic differences related to signs or language as such, or to processes of interpretation and social action, has not been included in this study. It is obvious that these are highly relevant issues for interpretation of messages. This exclusion enables more specialization and extensive detail when examining traditional and novel media monitoring methodologies. Perhaps it is sufficient to mention that in communication theory, one may distinguish between three types of difference: Discursive differences, or the range of potential meanings of a message; interpretive differences, or the meanings actualized by specific users in particular contexts; and Performative differences, or predispositions to act, based on media message interpretation (Jensen 2010, 44-47).

This study aims to provide an up-to-date overview and valuable insights into the strategies used to analyze foreign policies via coverage by traditional media outlets. It aims to be one of the first studies, and probably it is the first comprehensive study with focus explicitly on this underserved area of foreign policy research. It tries to identify gaps and provide recommendations for future research initiatives to improve understanding in this essential field by critically reviewing existing tools, sources and methodologies used by key stakeholders: journalists (foreign/international relations reporters, as well as commentators on foreign/international relations), analysts (foreign/international affairs), and diplomats (analytical departments, diplomatic corps in general, ministers and state secretaries).

These issues are of utmost importance. At the time of writing, there was an ongoing war between Russia and Ukraine, with heavy but indirect involvement (or not directly military involvement) of many European states, including the EU as a legal entity.<sup>5</sup> Conflicts in the Middle East were escalating. Some areas of East Asia seemed to be in turmoil, too.<sup>6</sup> Most recently, US Vice President JD Vance cast in his Munich 2025 speech<sup>7</sup>, together with public remarks by US President Donald Trump, in interpretation of majority media and analysts, the US as – ultimately - an adversary of the international rule of law and international order (see for example, Dupuy, 2025).

Few actors (journalists, analysts and diplomats) predicted this. For about three decades there was a prevailing feeling of hope, as expressed by Francis Fukuyama in his article published in the summer of 1989 and later in his book "The End of History and the Last Man", that there was the "*total exhaustion of viable systematic alternatives to Western liberalism*" (Fukuyama, 1989, 1). There was however, also a negative or perhaps more realistic alternative future presented by Samuel Huntington's "The Clash of Civilisations" (1993).

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<sup>5</sup> On the one hand, supply of weapons, ammunition, money, humanitarian aid and equipment for Ukraine, on the other hand, economic sanctions against Russia.

<sup>6</sup> Japan PM warns 'today's Ukraine could be tomorrow's East Asia', 04/10/2024 -07:57 Modified: 04/10/2024 - 09:49, <https://www.france24.com/en/live-news/20241004-japan-pm-warns-today-s-ukraine-could-be-tomorrow-s-east-asia>

<sup>7</sup> For the full text of his speech, see [https://www.lemonde.fr/en/opinion/article/2025/02/21/behind-the-words-of-jd-vance-s-historic-munich-speech\\_6738424\\_23.html](https://www.lemonde.fr/en/opinion/article/2025/02/21/behind-the-words-of-jd-vance-s-historic-munich-speech_6738424_23.html)

These analytical frameworks faced justified criticism for some of their problematic claims and grandiose visions of (invisible/latent) global trends almost immediately after their publications. Yet, what is happening now in international relations suggests that while part of the world attempted *to preserve* the new global order that had emerged at the end of the Cold War (thus indirectly supporting Fukuyama's vision), another part of the world (Russia, China), in liberal interpretation, sought to *revise* this international order. Specific instances, such as China's assertiveness in the South/East China Sea(s) (Chubb, 2024; Song, & Kim, 2024), or Russia's military activities in Syria and Ukraine (Lewis, 2020), advance this argument in liberal interpretation even more.<sup>8</sup>

Yet it should be acknowledged, as it will be discussed in the next part of this research project<sup>9</sup>, that the Russian leaders saw trends in global politics differently, as creating or at least, leading towards vital threats to Russia by *changes* in the *status quo*, in particular through the expansion of NATO to its border. In other words, Russian leaders perceived ongoing *changes* in international order as a vital threat to their interests. This is – for a moment - not to suggest who was right here – this is just to offer the first insight into mutually contradictory perceptions and motivations that shaped follow-up events.<sup>10</sup> Yet both sides had interpreted the key motivations and changes in IR differently before that.<sup>11</sup>

Moreover, major Western liberal media<sup>12</sup> in Europe and the USA seemed to support the narrative that framed Russia a revisionist power, or at least potential geo-political threat. For example, Finnish media's portrayal of Russia in 2018 “*Russia as an antagonist was a frequent theme in the reporting where a division into “west” and “east” was clearly visible. In material dealing with the military security around the Baltic Sea, Russia was framed as a potential enemy*” (Mård, 2019, 62). In Danish media “*A picture is painted of Russia as a dangerous country, of a powerful President Putin, of oppression and of Russia flexing its muscles and initiating turmoil abroad – a painting overshadowing other issues*” (Jørgensen, 2019, 89). In Norwegian media, “*The general coverage of Russia ... reveals that media coverage of Russia is to a large degree concentrated on Russia as a powerful and dangerous neighbour*” (Naper, 2019, 77). In Swedish media, “*From a national security perspective, Russia was presented as a potential threat to Sweden*” (Norström, 2019, 73). The coverage of leading German newspapers portrayed Russia in 2020 as “*as an invader, a military aggressor,*

<sup>8</sup> One of the reviewers questioned this claim, arguing that “*It might not be absolutely accurate that “part of the world attempted to preserve the new global order”, given that such order was being shaped for some time by Western powers disrupting the previously existing balance (of terror) and replacing it with a unipolar world, where the (aspiring) unique superpower actively attempted to dictate an arbitrary world ‘order’, which served its own narrowly viewed interests and, at the same time, disregarded possibilities for wider global cooperation.*” Moreover, “*A simple Google News search using the terms ‘China’ and ‘threat’ would be very revealing of a similar framing (bias?) of Western media towards a country that has no military presence abroad and has not been involved in a war for the last fifty years.*”

<sup>9</sup> Focused on critical discussion of analytical approaches used in tackling international affairs.

<sup>10</sup> In mid of January 2025, v Donald Trump said: “A big part of the problem is, Russia - for many, many years, long before Putin - said, ‘You could never have Nato involved with Ukraine.’ Now, they’ve said that. That’s been, like, written in stone,” Trump said.” Ukraine war briefing: Trump sympathises with Russian stance against Ukraine joining Nato, The Guardian, <https://www.theguardian.com/world/2025/jan/08/ukraine-war-briefing-trump-sympathises-with-russian-stance-against-ukraine-joining-nato>

<sup>11</sup> Henry Foy, Max Seddon, Amy Kazmin (2025, January 9). Donald Trump pushes back Ukraine War deadline in sign of support for Kyiv. Financial Times, cited a source close to Putin who said that Putin wants to change the rules of international order so there are no threats to Russia. See also Путин на переговорах с Трампом требует отвода НАТО от границ России, 10.01.2025, Moscow Times, <https://www.moscowtimes.ru/2025/01/10/putin-na-peregovorah-s-trampom-potrebuuet-otvoda-nato-ot-vostochnih-granits-a151998>.

<sup>12</sup> We come to analysts in the next part of our study.

*a murderer, an enemy, and its leader, in the interpretation of the media, is an insidious, cunning schemer; a dishonest player on the geopolitical chessboard.*” (Meľnik and Misonzhnikov, 2020,100). Kabel (2017, 24) concluded that Russia’s image in Western media was almost uniformly negative and critical.

However, some diplomats argued that *“When I read the comments regarding Russia in the Western media, I see how many have no idea what it is. How they underestimate Putin. They don’t understand him”* (former Czech ambassador in Russia, Vítězslav Pivoňka, in Procházková, 2024). This observation suggests that the image of Putin, as representant of Russia, was changing overtime.

Yet even some Russian analysts argued that *“From the incident at Pristina airport (1999) to the annexation of Crimea (2014), Moscow is trying to demonstrate that it will not abide by rules set by others, nor resign itself to the place of a second-tier power”* (Loukianov, 2015). It may also be even so that Russia only became a thoroughly revisionist state in the lead-up to its invasion of Ukraine on February 24, 2022 (Paikin, 2023).

Russian leaders appear to follow John Mearsheimer's more value-free or realistic perspective of international relations (discussed later) rather than Huntington's more traditional vision of a clash of civilizations or more idealistic vision of Fukuyama. Similarly, China's next steps may be closer to Mearsheimer's expectations than Fukuyama's or Huntington's. Crucially – and this example also points to the problematic nature of relying on media reporting - Zollmann (2024) identified two competing explanatory frameworks: the dominant Western news media narrative that assumed that Russia’s imperial ambitions and nefarious traits have caused the war, while according to a second narrative, advanced by several scholars, former diplomats and selected journalists, it was NATO’s eastward expansion that created the context for Russia’s invasion.

As discussed earlier, it appears that the second smaller group was right in their analyses. This is not to justify Russian invasion, or accept official aims (de-nazification and de-militarisation of Ukraine) behind her invasion. Yet, the main argument in Vladimir Putin’s speech in February 2022, was indeed NATO’s eastward expansion.<sup>13</sup> It may appear unlikely that a nuclear superpower would feel threatened when another neighbouring country becomes a NATO member – a very loose defence alliance. However, William Burns, former US ambassador to Russia, Fiona Hill, IR analyst and former advisor to a US president, already mentioned professor John Mearsheimer, professor George Kennan, and William Perry, former US defense secretary, all expressed their early warnings exactly in this sense.<sup>14</sup> One can add to these outliers - secular prophets, also Jeffrey Sachs.<sup>15</sup> It should be further specified that there were differences in opinions. For example, Fiona Hill argued that “NATO was not the proximate cause of Russia’s invasion of Ukraine” although she did see already in 2008 that “it was always obvious that NATO’s enlargement to Ukraine and to Georgia was a provocation for Putin”. Crucially, but questionable, she argued that “the heart of all this was the persistence of imperial thinking from the tsarist and Soviet eras, wanting to exert political,

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<sup>13</sup> Address by the President of the Russian Federation, February 24, 2022, <http://en.kremlin.ru/events/president/news/67843>

<sup>14</sup> Jan Eichler (2025, February 22. Válce na Ukrajině se dalo předejít. Kdo nás varoval a my neslyšeli (The War in Ukraine could have been prevented. Who warned us, and we did not listen). Lidovky, [https://www.lidovky.cz/nazory/ukrajina-rusko-valka-donald-trump-vladimir-putin.A250222\\_154117\\_In\\_nazory\\_halu](https://www.lidovky.cz/nazory/ukrajina-rusko-valka-donald-trump-vladimir-putin.A250222_154117_In_nazory_halu)

<sup>15</sup> E.g. Jeffrey Sachs: The West’s Dangerous Narrative About Russia and China, and the Urgent Need for a Draft Peace Agreement: The Great Game in Ukraine is Spinning Out of Control, 2022, <https://metacpc.org/en/jeffrey-sachs-2/> or <https://www.facebook.com/share/v/16CKzfQNun/>



economic and security influence over Europe.”<sup>16</sup> However, apparently, NATO expansion seemed to be the major concern for Russia.<sup>17</sup>

Therefore, this research attempts to explore, at a general conceptual/methodological level, whether some of the above mentioned adverse developments – as well as related and earlier predictions in IR and global affairs - could have been misunderstood or misinterpreted by analysts, including academicians (at least in part) due to two factors. First, the use of low quality - low reliability and validity of methodologies used for monitoring foreign policies and events coverage in the (local, national and international) media.

Second, the use of low reliability and validity methodologies used in subsequent analyses of (primarily, but not exclusively) media outputs. Two special case studies and surveys among journalists, diplomats and analysts will be conducted for the latter task in the next phase of this research.

It may be assumed that low quality monitoring (not only through a negligent or unprofessional approach, but due to deeply mechanical use of sources, tools and methods,) of the media coverage of emerging changes in foreign policies and related events may have resulted or contributed, in some cases towards unreliable foreign policy analyses and, most importantly, problematic foreign policy decisions. This issue will be discussed in a separate section of the report.

However, it could also be that the media (both local and foreign/international) produced low quality coverage of foreign policies and events in their outputs. This issue also will be discussed in a separate section of this report focused on selection criteria and news values.

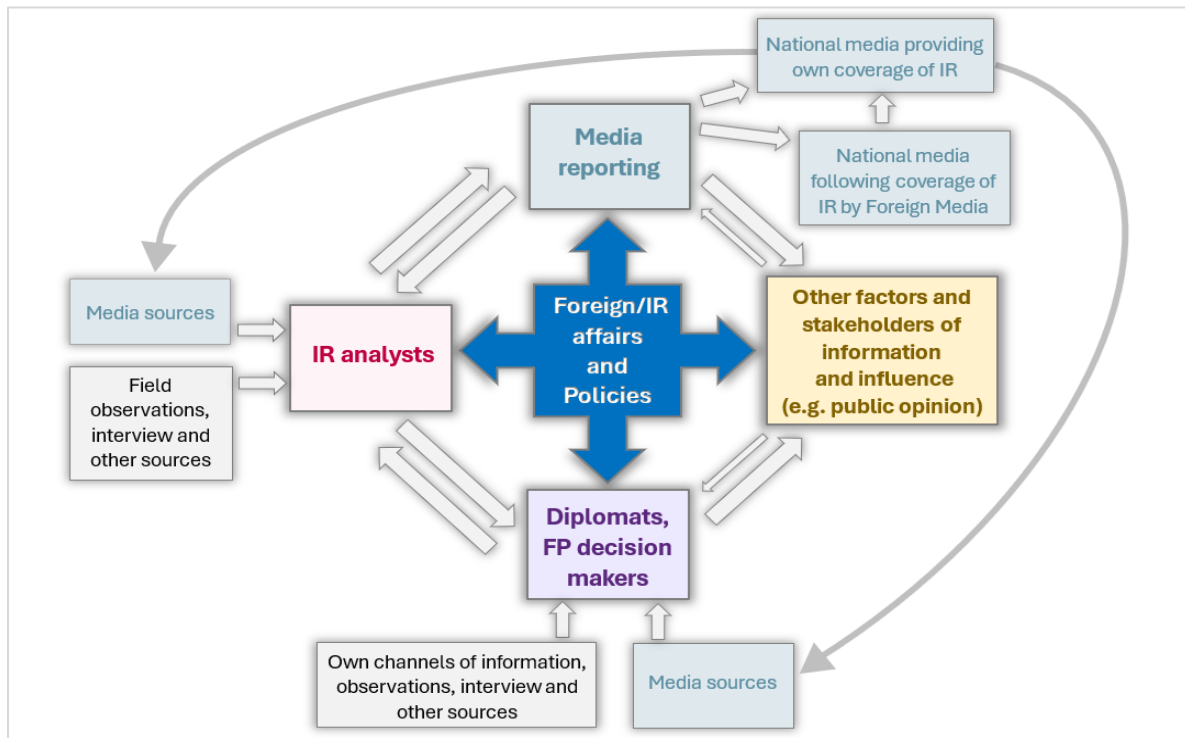
Finally, inadequate coverage of foreign policy intentions in the local or international/foreign media and/or low quality analyses by some experts may have influenced diplomats and professionals at ministries of foreign affairs, especially those not assigned to diplomatic missions abroad. As discussed, multiple factors may be at play. This situation is visualized in the following Chart 1.

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<sup>16</sup> Interview: Rieke Havertz und Martin Klingst, 12. Mai 2023, 12:29 Uhr, "The world is feeding Russia's imperial delusions", <https://www.zeit.de/politik/ausland/2023-05/fiona-hill-ukraine-war-russia-europe>, see also <https://www.foreignaffairs.com/russian-federation/world-putin-wants-fiona-hill-angela-stent#>

<sup>17</sup> Branko Marcetic, Sep 19, 2023, When officials say the quiet part about Russia and NATO out loud, <https://responsiblestatecraft.org/russia-ukraine-nato-expansion/>

**Chart 1: Matrix of Sources of Information and Influence in IR from Communication and Analytical Perspectives**



Source: Author

Let us simplify these complex interactions into three analytical levels: **macro, meso and micro**. Micro level studies individuals or other single entities (e.g. media outlets) and their relationships, values, and norms. Meso level examines midrange-sized groups or categories or institutions (such as the fields of journalism, politics, economy, culture etc.), their relationships, their common values and professional norms at that level. Macro level focuses on large-scale social processes in the context of an entire socio-political system. Individual media owners belong to the micro level, while media owners collectively belong to the meso level. The macro level comprises entire fields interacting with each other.

The micro-level is, in our case study, created by individual journalists, analysts, and diplomats (micro actors). At the micro-level, individual journalists according to their relative power, shape the field of journalism covering IR – foreign affairs. Analysts and diplomats, in part, rely on outputs by journalists and utilize their own sources and analyses by other analysts and diplomats. However, as suggested, journalists, and in part analysts, may be influenced in their coverage of IR by their own values and professional norms (as well as by values of media, and specifically media owners).

The meso-level is in contact with both the micro- and macro-levels, which do not necessarily communicate directly (Anastasiou, 2017, who has adopted a Bourdieusian analytical approach based on a 'field theory' perspective). Media coverage of foreign affairs/IR is primarily based on own reporting (wire agencies and permanent or ad hoc correspondents of selected media), but in part relies on local media coverage in a foreign country. In contrast, local media in distant countries rely heavily on local wire agency outputs and coverage provided by major national media. The field of journalism, at the meso-level as a whole, interacts or partially overlaps with the field of economic power, politics, and culture, all comprising the system at the macro level. For example, an older country study (Albæk, 2011) suggested that the contact between experts and journalists comes as the result of initiatives taken by the journalists (approximately 90% of the cases), not the other way around

(12% of the cases). Thus, relatively active interaction proceeds between experts and journalists, whereby the experts generally provide background knowledge and serve as a sparring partner for the journalist in the latter's attempts to interpret a given event or course of events on the public agenda. However, the usefulness and impact of such cooperation differ from country to country. Abb (2021) argues that even in China, expert commentators show a substantial variety of opinions. Still, political constraints, skewed incentives, and a slanted media environment keep them from utilizing their full potential for improving policy outcomes.

Finally, concerning intermedia citations, the leading newspapers of India and Pakistan relied on each other to provide information about the happenings on the other side of the border. However, neither objectively informed readers about the perspective of the opponent side on critical bilateral issues (Hussain, Wani, & Rehman, 2024).

In diplomacy/foreign service, there is a specific, probably comparatively more intensive, mutual exchange of information and opinions and analyses among diplomats and (selected) IR analysts at the meso-level, especially among more considerable international powers. Nonetheless, diplomats' interactions with politicians are consequential for both policy formation and constituting national identities. Moreover, diplomats have an unappreciated capacity for an agency. Diplomats, or MFAs, play at least four roles in negotiating the nexus between them as policy messengers, shapers, producers and resisters (Wiseman, 2022). Yet in some contexts, the MFAs overall do not serve as a platform for other state institutions (Kļaviņš, 2021).

However, there is probably not much interaction at the meso-level between journalists, diplomats, and analysts in the foreign affairs/IR coverage. Moreover, the exploitation of government officials, non-government experts, and other journalistic sources varies between and within nations' media systems (Venger, 2019). For example, there is more willingness from policymakers to turn to think tanks for expertise in the UK than in Italy. In Italy, policymakers tend to rely less on external expertise. Instead, the core audience of think tanks in Italy tends to shift to public opinion, academia or businesses (Longhini, 2015). This is not to say that journalists are never actively involved, although usually indirectly, in diplomacy. Gilboa (1998) provided three conceptual models: media diplomacy, public diplomacy, and media-broker diplomacy, including real-case studies from the past. Therefore, one suggestion of this research is to increase and ideally formalize interaction among these three basic groups of stakeholders via, e.g., a collaborative competence group. Yet it should be noted that journalists' and researchers' ways of providing expertise differ (Nikunen, Korvajärvi & Koivunen (2019).

Anastasiou (2022, slide 4) suggested that the journalistic environment (macro and meso-levels) is more potent than the interests and wishes of an individual journalist (micro and meso-levels), and political as well as economic power (macro-level) is stronger than the journalistic field as a whole (meso-level). This may be seen as an answer to the question of how powerful the media are. It also shows that Schudson's (1996) and Ekecranz's (1996) description of journalism as 'the sense-making discourse of modernity' may be perhaps too optimistic (cited in Valtonen, 2017, in 157). For example, Nossek (2004) demonstrated clear national(istic) bias in reporting news about 'The Other'. Galtung and Ruge (1965) implicitly suggested that journalists should counter-act the established 'news factors' used in the construction of news, in order to facilitate conflict resolution instead of perpetuating tensions in the international scene.

As can be perhaps understood now, developing a coherent media–foreign policy relations model is hindered by the problematic nature of cause-and-effect identification (Schulz, 2013, 2). There is an increasing understanding that causal links in media–foreign policy relations are

contingent, multidirectional and dynamic (Schulz, 2013, 2). For example, findings of Wang, Cai & Feng (2018) support both the selective exposure hypothesis (intentional exposure) and the large media effect model (incidental exposure). In particular, the authors used the survey method to compare the effect of differential media exposure on Chinese college students' attitudes toward China's maritime claims and disputes. They found that intentional news exposure to China's state media, commercial media, and online news outlets did not affect Chinese college students' attitudes toward China's foreign policy. By contrast, the authors found that incidental news exposure on WeChat (a relationship-oriented social media network) played a more significant role in increasing Chinese college students' support for the forceful resolution of maritime disputes than exposure on Weibo (a micro-blogging platform) when students communicate in a homogeneous environment. Moreover, Wang, Cai & Feng (2018) concluded that cross-cutting exposure on Weibo was conducive to developing moderate, reasoned, and open-minded opinions on China's foreign relations. Still, students could not reap the same benefits of cross-cutting exposure on WeChat.

Schulz (2013) has suggested an analytical framework for systematically analyzing media–foreign policy relations by integrating foreign-policy context conditions as a research variable while aiming to explain the media's contingent roles. The intensity of media involvement is distinguished here according to three dimensions: no involvement, indirect involvement and direct involvement. However, Schulz (2013, 13) knew that this model adopts an ideal-typical approach. Two issues stood out. First, many relationships between states would be placed in grey zones between conceptualized dimensions of involvement. Secondly, foreign policy processes are influenced by numerous factors, which are analytically challenging to isolate and often complicated to detect.

Schultz (2013, 12) based her motivation to develop a new analytical framework on critical assessment of previous theories and research methodologies:

*“...the proposed analytical framework emerges in the first instance from the limited explanatory power of established theoretical instruments: Though meanwhile, a number of respective theories have been introduced, approaches which propose a specific role of the media – either overall active or passive – still seem to gain predominant attention. Empirically, these theories have not been sufficiently verified, thus signaling a dead end in the attempt of investigating causal mechanisms from a dichotomous perspective. One crucial reason for the limited explanatory power of these theories traces back to the context of their development. A vast majority of them has been generated in the political context of crises and conflicts, which bears difficulties for a more general research agenda: Crises and conflicts are unique political situations, which represent a very limited section of foreign policy sectors and differ in their features from other foreign policy contexts as routine or planning decision making processes. Several well-established theories therefore were generated within specific political contexts, which, however, often remained theoretically insufficiently reflected and defined. The omission of their theoretical conceptualizing results in political context. conditions often falling into a theoretical black box. This complicates the reasonable comparison and reflection of respective studies – a step, which is indispensable for a systematic advancement of these theories and a cumulative research agenda.”*

Follow-up developments in this field will be discussed in part on methodologies used in FP analyses to be produced in the next phase of this research. Nonetheless, ideas expressed by Schutz signal some problematic issues related to previous studies. For example, in Anastasiou

view, foreign policy and international relations issues, from a perspective of analysing journalistic coverage, must be viewed as a special case, where the principles of ‘news values’, ‘objectivity’ and ‘professionalism’ do not apply in the way they do in the coverage of internal political issues. In support of the latter, Anastasiou and Bilge (2015,1), conducting discourse analysis of Greek and Turkish newspapers, concluded that “subjugation of reportage to the ‘national interest’ undermines any journalist’s ability to report honestly and truthfully”. This is further explained by Anastasiou (2017, 71), who maintains that “[p]revalent in most Greek and Turkish journalists is the belief that they have a duty to safeguard the ‘national interest’ and the ‘national image’, rather than their desire to report accurately in all cases. This is caused by two factors: (1) the fear that they will be labelled as traitors and (2) constant peer pressure, concludes Anastasiou.

Foreign policy analysis and policymaking are not exclusively based on media coverage. There are internal, often classified, diplomatic reports from foreign missions as well as intelligence services outputs (primarily from civil intelligence, but also from military intelligence), especially from potentially critical areas, to mention two additional key sources of information and analyses in foreign policy. Perhaps the most famous example of this type of output that combined reporting and analyses in intelligence analysis was George Kennan’s “Long Telegram” and the subsequent 1947 article “The Sources of Soviet Conduct”<sup>18</sup>.

More recently, during ‘Cablegate’, WikiLeaks cooperated with the New York Times and other leading newspapers in 2010, providing them access to 250,000 leaked US diplomatic cables. These revelations suggest how extensive this information source can be occasionally. Interestingly, Hunt (2019) argued that only a few scholars explored small parts of the archive, while diplomatic historians and political scientists largely dismissed the cables as source material.

We have already briefly mentioned John J. Mearsheimer who was one of the most outspoken opponents of the 2003 Iraq War before it happened.<sup>19</sup> Even more importantly, John Mearsheimer published the provocative or at least certainly out of the mainstream article “Why the Ukraine Crisis Is the West’s Fault”, in 2014.<sup>20</sup> Mearsheimer explained his general international relations theory well before the Russian-Ukrainian War began in 2022 in his book “The Tragedy of Great Power Politics”, published in 2001. The purpose of mentioning Mearsheimer is not to highlight his perhaps controversial ideas that may be incorrectly interpreted (of course, the fact that the Russian invasion of Ukraine is in breach of international law is not what Mearsheimer argues). Mearsheimer is mentioned here as somebody who did not follow the mainstream media and analysts’ reporting and analyses and, nonetheless, got it right in the key aspect – that Russia would become aggressive if no satisfactory accommodation of her geo-strategical wishes were found. This is, and was, for some, a cynical or realistic perspective on international relations.

Already, the main point of another famous author, Walter Lippmann, in his publication from over a hundred years ago, “Public Opinion”, was to demonstrate the problem that is democracy in its original form facing “*because the pictures inside people’s heads do not automatically correspond with the world outside*” (p. 19) and to suggest a remedy based on organized intelligence and “*representation of the unseen facts*” (p. 19) of public affairs. Walter Lippmann supported his argument by discussing how public opinions consist of pictures inside men’s heads and why the picture “*so often misleads men in their dealings with*

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<sup>18</sup> <https://nsarchive2.gwu.edu/coldwar/documents/episode-1/kennan.htm>

<sup>19</sup> <https://www.mearsheimer.com/>

<sup>20</sup> Of course, there are arguments that question Mearsheimer’s key thesis, see e.g. Yurchenko 2024.

*the world outside*” (p. 18). He revealed how stereotypes affect public opinions and how these individual opinions “*are crystallized into what is called Public Opinion*” (p. 19).<sup>21</sup>

Yet regionally (Central and Eastern Europe), except for some politicians and political parties, there are rare dissent voices in academia and diplomacy. One such case is another professor of international relations and former Czech diplomat, Petr Drulák.<sup>22</sup> Some of his opinions may be seen as too emotionally laden, but becoming familiar with some of his key ideas may be interesting. For example, “*Great wars have always accompanied the change in World Order*”, may better explain (or at least frame into a broader analytical picture) deeper global trends than analyses of specific cases, including the Russian-Ukrainian war.<sup>23</sup> Drulák’s assumption may be close to (ancient) Thucydides’ theory that argues that when an emerging power threatens a great power’s position as hegemon, there is a significant likelihood of war between the two powers. Followingly, there is the idea of Thucydides’ Trap, initially developed in a 2012 article for the Financial Times by Graham Allison and further developed in his 2017 book *Destined for War*, that may perhaps provide better clues for overarching (mis)understanding of U.S.-China relations. However, a rising superpower does not necessarily have the intention to change the status quo or wage a war (Chan and Hu, 2025).

The fact that Drulák is a sort of outcast in the local community of experts suggests that there may be a missing but much-needed dissenting voice among established European diplomacy and community experts in international relations. This hypothesis will be further explored in a study focused on methodologies used to analyze international events based primarily on media sources. Apparently, media contributed to silencing dissent voices, too. As put by Zollmann (2024, 380), the US, the UK and the German press did not scrutinize why dissent was marginalized and rarely provided assessments of NATO expansion that went beyond the parliamentary consensus.

While researching these specific issues, a comprehensive overview and critique of available methodologies and tools used for foreign policies monitoring coverage in the media will be provided.

But what do we call media monitoring? Although there is a long tradition of research called international media monitoring, its aim was initially to assess media performance against criteria such as truth, bias, and equal treatment in coverage. The fundamental idea behind such international media monitoring was to explore how the media contributes to democracy development and its prosperity. In short, it was criticism of media and journalistic outputs based on a method of empirical analysis (e.g. Nordernstreng and Griffin, 1999). In line with this type of analysis, there is currently the company Ad Fontes Media that regularly evaluates media bias. We present their visualization, which indirectly or partially represents the media quality through the presence or absence of bias in media outputs.

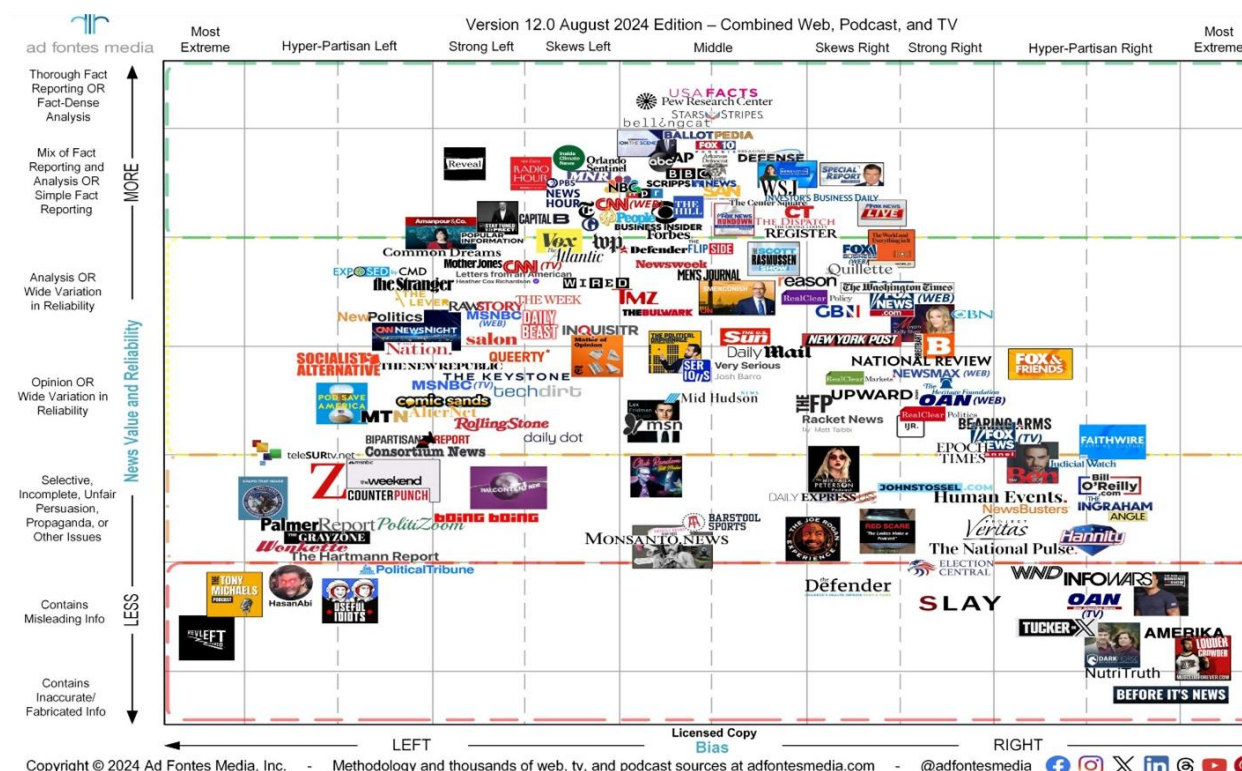
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<sup>21</sup> <http://www.fromthelabbench.com/from-the-lab-bench-science-blog/a-review-of-lippmanns-public-opinion>

<sup>22</sup> [https://www.zcu.cz/cs/Employees/person.html?personId=102669\\_drulak@ff.zcu.cz](https://www.zcu.cz/cs/Employees/person.html?personId=102669_drulak@ff.zcu.cz)

<sup>23</sup> Petr Drulák. (2025, January 5). *Za zdánlivou stabilitou velké síly*. Parlamentní Listy, <https://www.parlamentnilisty.cz/arena/rozhovory/-Za-zdanlivou-stabilitou-velke-sily-Petr-Drulak-popsal-co-nam-skutecne-hrozi-767300>

Chart 2: The Media Bias Chart (2024 Edition)



Source: Ad Fontes Media, 2024

It uses an interesting approach, combining the identification of ideological left-right bias with quality assessment of outputs. Among more famous brands, BBC and AP can be identified here as the leaders lacking ideological bias and guaranteeing quality of their outputs, respectively. Perhaps ironically, the BBC has been accused by more than 100 of its staff (more than 230 media industry professionals) of giving Israel favourable coverage in its reporting of the war in Gaza and criticized for its lack of “*accurate evidence-based journalism*”, in 2024.<sup>24</sup> In fact, this criticism may reflect high standards expected from high quality public service media, while rarely acknowledging complexity of international events coverage.

Unfortunately, the majority of other global media, or at least important agenda setting national media (including European ones) are missing in this type of media monitoring and their qualitative assessment. Therefore, another suggestion of this research is to expand the monitoring of media, following the Ad Fontes Media methodology, and inspired by systemic review such as by Rodrigo-Ginés, Carrillo-de-Albornoz and Plaza (2024) as well as by methodological insights for transparency of the basic media ownership structure by Tomaz (2024), and to establish a European media monitoring per example above with the ultimate purpose to serve foreign policy monitoring. This would provide first hints (and selection criteria) to analysts and diplomats of what is the quality and inherent ideological bias of the media they follow. This is important and often challenging job.

As an illustration, one can find two specific instances (micro-case studies) either of media bias (Appendix 18) or of media analysts’ bias (Appendix 5). In former case, there is a description of how the media tried to downplay or ignore a specific case of problematic behaviour by a military of attacked country. In the second example, biased analysts wondered

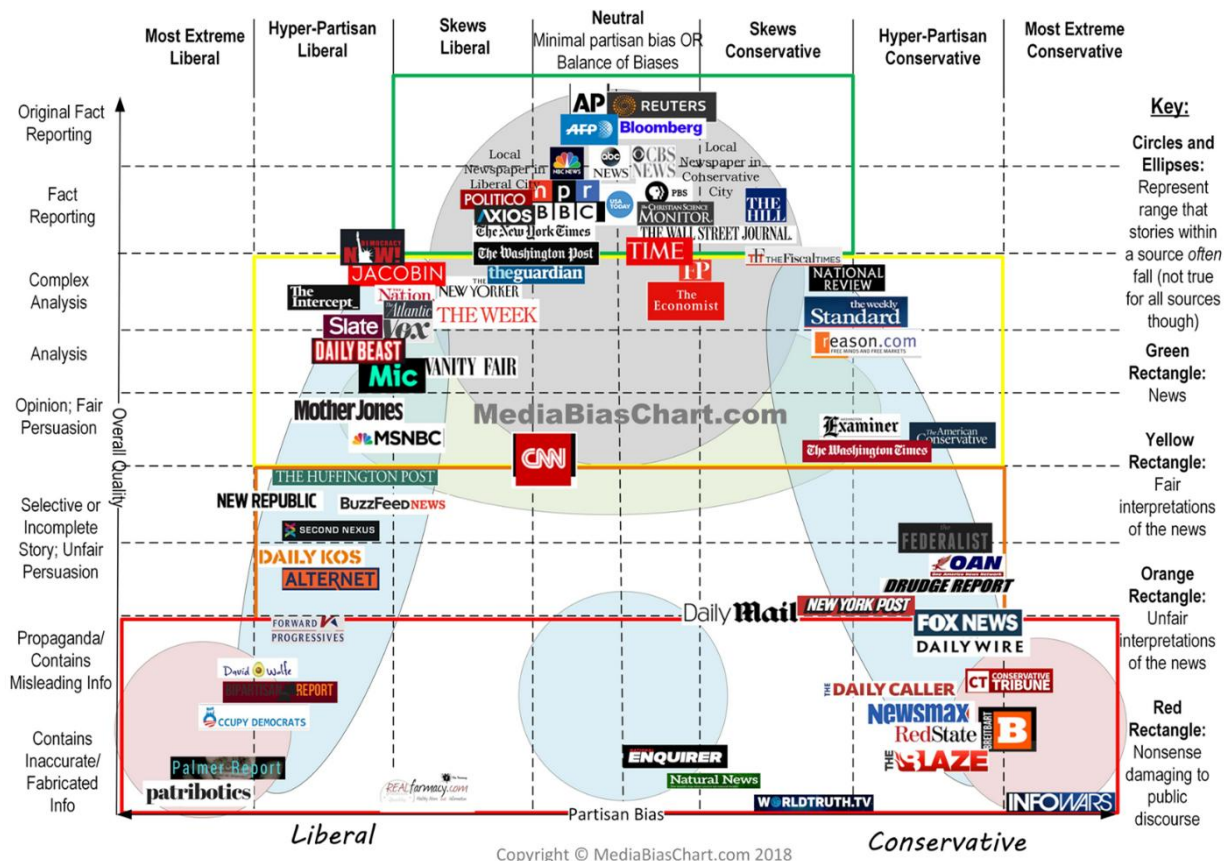
<sup>24</sup> Athena Stavrou, More than 100 BBC staff accuse broadcaster of Israel bias in Gaza coverage, Friday 01 November 2024 18:58 GMT, The Independent, <https://www.independent.co.uk/news/uk/home-news/bbc-israel-gaza-letter-tim-davie-bias-palestine-b2636737.html>



why major US television networks spent 10x more time coverage on international doctorate candidate (alleged Hamas-supporter, due to her an op-ed) arrested in public, rather than the violent gang leader's arrest. It is clear that a student who just protested in writing, or expressed her opinion, can hardly be seen as being equal to the violent gang leader.

Below is a more specific, however not quite up-to-date chart (from 2018) focusing exclusively on the most unbiased international news sources.

**Chart 3: Bias in International Media**



Source: Quora, Suzanne McGee, 2018, originally from MediaBiasChart.com

AP, Reuters, AFP and Bloomberg were at the top of the ranking. It is interesting to note that the first three wire agencies mentioned have existed for over a hundred years. Among newcomers, and those important for Europe, there is the online news portal Politico mentioned. Surprisingly, CNN (as CNN International) that is often followed globally, was ranking quite low regarding the quality of its outputs. Importantly, CNN, AP and Reuters have traditionally been used in media monitoring projects based on big data, as will be discussed later on. Some researchers involved in research based on big data sets involving media outputs were aware of (sometimes) biased journalistic outputs, including those produced by wire agencies. As put by Azar and Havener (1976, p. 232, cited in Reuveny, & Kang, 1996, 282): “we cannot say that all the biases of newsmen press agencies and ministers of information have been eliminated . . . we do not underestimate the existence of filters in the perception, prosecution and interpretation of international politics.”

Kluver, Campbell & Balfour (2013) argued more geopolitically that:



*“...data-driven research in global media has not kept up with the inherent interest in internationalization due to a number of factors, including access to global media and the lack of foreign language skills among many media researchers. Thus, the field still remains focused on analysis of Western media, leading to misunderstanding the geopolitical impact of global media.”*

There had been many attempts at data driven research (although not yet really using big data as understood today), as we shall discuss, but this was done mostly in early stages and with controversial results. Nonetheless, Kluver, Campbell & Balfour (2013, 15) persuasively argued why there is a need for international media content monitoring based on (big) data-driven research, and, we would add, most recently, with support of Artificial Intelligence (AI) and/or enabled by Natural Language Processing (NLP). It is worth citing their argument in length:

*“Media monitoring technologies, because they combine text, visual, and audio components, also allow for new possibilities for textual and visual content analysis of global media data, as well, which is currently available only through capturing visual content and developing annotated video clips, a time-consuming and labor intensive process. This possibility allows research in international communication to include new elements that are not traditionally studied across cultural boundaries, such as the impact of visual image on audiences and broadcast content. Moreover, the system provides a mechanism for generating comparison between traditional broadcast to new media sources, such as through social media or Web sites, enabling new research agendas in international media studies, such as cross-platform agenda setting and the ways in which broadcast news might be amplified through new media formats.....Although researchers do their best to accurately convey content and then analyze it, media monitoring technologies allow the rapid development of online, searchable archives of global media content, tagged and with relevant metadata and annotations, allowing much broader access to a larger community of scholars, and the possibility of creating collaborative data collections, which would enable numerous researchers to access broadcast archives, and develop unique and innovative mechanisms for creating crowd-sourced research projects.”*

In addition to the issues related to monitoring global events, De Spiegeleire, Akimov & Shantz lamented, that *“Unfortunately, foreign policy analysis is a field in which systematic datasets are virtually non-existent.”* (De Spiegeleire, Akimov & Shantz, 2015, 17). Further, they argued that there were numerous datasets in the field of international economics and a few in the field of international security (mostly focusing on war and conflict), but no one directly dealing with foreign policy. Then, to their knowledge, best compilation of datasets in the field of international studies was International Studies Association, “Datasets - ISA Compendium Discussion Site”. However, it did not contain a single cross-sectional, longitudinal dataset focused on the study of foreign policy. Currently, this dataset is called Oxford Research Encyclopedia of International Studies (OREIS).<sup>25</sup>

It should be noted that discourse in global news media has generally become more individualistic in recent years (Santos *et al*, 2017), or perhaps more precisely, more chaotic and less connected. If the uplift in attention is sudden and media-driven, these issue cycles are called ‘media storms’, ‘hypes’, or ‘wave’ (see more in Wien & Elmelund-Præstekær, 2009).

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<sup>25</sup> OREIS is available online for all International Studies Association (ISA) members and can also be purchased directly through Oxford University Press.

In politics, or in mathematical modelling, this factor is called ‘randomness’ or the ‘degree of randomness’ of the forecasts (Castro and Jacovkis, 2015,1). Headlines become longer with the move online (Nickl, Moussaïd & Lorenz-Spreen, 2025). This trend may actually help in AI-supported analysis. Moreover, some studies suggest that the use of new communication technologies also supports the pursuit of exclusive news-story angles and a fuller delivery of the correspondent's value (Archetti, 2013).

Among new challenges one can include content generated by AI. Almost 7% of all collected articles using NewsCatcher` API were identified as produced by AI (either fully or partially). In the category ‘world’, this number was lower, about 3 %. This finding was produced based on all the news published on one day and follow up analyses of 857,434 articles collected from 26,675 online publishers in July 1, 2024 (Emi, 2024).

De Spiegeleire *et al* (2017b) introduced the two terms ‘nowcasting’ and ‘geodynamics’.

By ‘nowcasting’ – as opposed to forecasting – they understood the process of monitoring, depicting and analyzing ongoing developments in international relations as they occur. By ‘geodynamics’ they meant the complex dynamics of international interactions in different fields – such as diplomatic, economics, legal, military. Although these are innovative concepts, it does not seem that they became widely used in academic literature. Moreover, we might need a more specific term, e.g. ‘FP-dynamics’ (as an acronym for emerging foreign policy changes).

Finally, Anastasiou (2022, slide 4) suggested within discussion on news values and news criteria, to use a new concept of ‘publishability’, so that appropriate emphasis is given to the external newsroom factors that are also (besides news values) at play in that process. It is questionable to define ‘publishability’ as the *“ability of any story to manage and be published in the media, on the basis of non-journalistic criteria, whether it has been deemed to be newsworthy or not.”* This may be conflated with PR activities and advertorials. Or maybe we can use a better terminology here (to be developed).

In the next part, we discuss the general methodology used in this research. Then in the follow up section we discuss methodological challenges associated with journalists’ news values and news selection criteria, as well as external influences.<sup>26</sup> This discussion is supported with original mini-survey among journalists from six (de facto five) countries. The issue of quality, complexity, and in general of reliability of outputs produced by journalists (or, what is actually being monitored) is a fundamental issue that, if not considered properly, may significantly impact media monitoring results.

In the main section, we discuss methodological challenges associated with media monitoring from perspectives of large data (understood historically as large media outputs corpuses from mostly a few wire agencies or global newspapers) and past projects, as well as from perspective of big data (virtually thousands of sources and hundreds of thousands items extracted, increasingly analyzed with the help of AI) utilization, and with the help of modern tools that are used for monitoring of media outputs. These challenges are considered and discussed using various analytical approaches.

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<sup>26</sup> However, as put by Anastasiou, “PR and commercial factors can indeed be included in the “external to the newsroom” ones, although - importantly - the factor of influence of the fields of power, politics, economy and culture on the journalistic field is what **‘publishability’** mainly refers to.”

## 2. METHODOLOGY

This research project attempted to use multiple approaches to this undoubtedly complex topic. A literature analysis established theoretical foundations, while an online survey gathered direct perspectives from journalists. Descriptive statistics was used for quantitative data and thematic coding for qualitative responses and to identify patterns.

Firstly, a selection of academic databases was chosen for more refined search (using key terms) of articles and studies. The selection of databases included JSTOR (covering not just articles, but also studies), Sage (covering sources from prestigious global, mostly European academic journals and authors), CEEOL (covering academic sources from Central and Eastern Europe, sometimes of questionable quality) and DOAJ (Directory of Open Access Journals). Academia.edu and Researchgate.com, as well as occasional search in online databases of major publishing houses such as Francis Taylor, served as additional source of information, in particular when previously identified databases did not offer full access to an article.

In particular, JSTOR claims that it provides access to more than 12 million journal articles, books, images and primary sources in 75 disciplines.<sup>27</sup> However, not all sources are free to access. Sage offers more than 1,100 journals, including over 200 gold open access journals, and 400 society partners.<sup>28</sup> A large part of articles is available with paid access. CEEOL argues that it is “*a leading provider of academic eJournals, eBooks and Grey Literature documents in Humanities and Social Sciences from and about Central, East and Southeast Europe*”.<sup>29</sup> It collected 2895 journals with 74311 archived issues and 985459 archived articles. Many articles are available only with paid access. DOAJ claims to cover 80 languages, over 21, 000 journals and about 10.5 million articles.

In some cases, those articles behind paywall could be identified in other sources as freely accessible. This approach (ie additional search for full text) was used for the most promising articles (based on abstract). Similarly, in some cases, promising articles in foreign language (e.g. Turkish) were translated using one of many AI supported language tools (most often, Google Translate).

Secondly, an online questionnaire with up to 20 questions was developed by three researchers in multiple rounds of deliberations (based on previous theoretical investigation), and then tested locally with relevant respondents. We used a Likert scale (see Appendix 1). The key questions focused on three key issues: how **useful/essential**, how **reliable** and how **often are used** the most likely/most often used sources/channels for monitoring among journalists interested in foreign affairs (FA) or international relations (IR) (including commentators and editors).

In addition, we checked how journalists perceive adjusted selection of more recent news values and selection criteria suggestions (based on previous theoretical elaborations). It should be noted that for one respondent (and there could be more with this feeling) “*questions seem pretty abstract*”. Also, another anonymous respondent replied that “*the questionnaire presumes that journalists use the ‘news value’ approach on a conscious level, while I believe it’s much more common for those values to be subconscious.*” We understand this objection,

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<sup>27</sup> <https://about.jstor.org/>

<sup>28</sup> <https://us.sagepub.com/en-us/nam/journals>

<sup>29</sup> <https://www.ceeol.com/>

although it was hoped that we encouraged respondents to express these subconscious ideas more specifically.

We selected six small countries covering diverse cultures and history of EU Member States: Czechia, Denmark, Ireland, Hungary, Latvia, Slovakia. In doing so, we followed 'similar cases' selection approach with respect to country and population size, while allowing diverse journalistic cultures, and partly political cultures, to be included.

We collected manually in total approximately 860 email addresses of journalists in those six countries based on open sources – websites of media outlets (300 for Czechia, 88 for Denmark, 100 for Ireland, 68 for Hungary, 96 for Latvia, 210 for Slovakia). For a specific example of how detailed our efforts were in this task and what challenges we faced, see Appendix 2. Disproportion among samples size reflects better knowledge of the Czech and Slovak media environment (and, for Czechia, there also is a bigger media market with more journalists).

We followed a selection of country media outlets based primarily on the BBC Media Guide.

It should be noted we contacted researchers in Denmark, Hungary, Latvia and Ireland in search for an answer to the question how best to approach selected journalists, and to double-check whether we got correct names of journalists and the key media in our lists. They all complained that to reach out to journalists is almost an impossible task. In addition, for the same purpose, we contacted two journalistic organisations in Latvia (no direct response at all, but at least the head of organisation filled in our questionnaire)<sup>30</sup>, one in Ireland (no response)<sup>31</sup> and in Denmark there was at least a negative response (*"The Danish Association of Journalists cannot and must not participate in the project"*).<sup>32</sup> The positive answer was received from the Czech Union of Journalists as well as from the Czech wire agency ČTK, although ultimately with low impact on participation among respondents.

In the next round, we contacted Irish and Latvian embassies to Slovakia (there was a positive response from Latvian embassy in Vienna). Finally, we contacted Slovak embassies in Latvia, Ireland, and Hungary (there was a positive response from Slovak embassies in Ireland and Hungary). We wondered whether embassies could help in reaching out to local journalists.

In spite of all our efforts, the response rate among journalists was overall very low, on average about 5 %.<sup>33</sup> With hindsight, while there are no hard and fast rules around how many people one should involve in research, some researchers estimate between 10 and 50 participants as being sufficient number depending on the type of research and research question (Creswell & Creswell, 2018). Roscoe (1975) suggested that a sample size greater than 30 and less than 500 is suitable for most behavioural studies. We managed to get 25 responses, so it may be seen as sufficient number for basic overview of issues of our interest.

It is true that survey sample size calculators suggested higher numbers of needed respondents, depending on required confidence level and margin of error. We used two survey sample size calculators. The first one suggested that at population size (in our case number of journalists) 680, sample size 25, confidence level is at 80 % and margin of error is 13 %.<sup>34</sup>

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<sup>30</sup> "zurnalisti.nvo@gmail.com" <zurnalisti.nvo@gmail.com>, "jpaiders@inbox.lv" <jpaiders@inbox.lv> 25 October 2024, 21 October 2024, 17 October 2024,

<sup>31</sup> "info@nuj.ie" <info@nuj.ie> 5 October 2024, 21 October 2024, 16 October 2024

<sup>32</sup> Hans Jørgen Dybro, chief political adviser, dyb@journalistforbundet.dk, 22 October 2024.

<sup>33</sup> As advised by Andreas Anastasiou, "Seeking the collaboration of a few well-known professional journalists in all countries of interest, through local researchers (who should have some contacts in the field) may be the way to overcome that difficulty."

<sup>34</sup> <https://surveyplanet.com/sample-size-calculator> <http://www.raosoft.com/samplesize.html>

Another survey sample size calculator suggested for the same population size and margin of error 15 %, with identical confidence level, the required number of participants would be 18.<sup>35</sup>

We present statistical data on our sample in the following Table 1.

**Table 1: Statistical Data for Survey Dissemination**

|                 | Sent | Message:<br>Not delivered | Message:<br>Access<br>denied | Survey<br>Filled in | Interested in<br>the results | Interested in<br>in-depth<br>discussion |
|-----------------|------|---------------------------|------------------------------|---------------------|------------------------------|-----------------------------------------|
| <b>Czechia</b>  | 304  | 56                        | 0                            | 6                   | 3                            | 2                                       |
| <b>Denmark</b>  | 88   | 12                        | 0                            | 3                   | 2                            | 3                                       |
| <b>Hungary</b>  | 68   | 1                         | 5                            | 4                   | 2                            | 0                                       |
| <b>Ireland</b>  | 100  | 1                         | 44                           | 0                   | 0                            | 0                                       |
| <b>Latvia</b>   | 96   | 32                        | 10                           | 3                   | 2                            | 2                                       |
| <b>Slovakia</b> | 210  | 20                        | 6                            | 9                   | 4                            | 2                                       |
|                 | 866  | 122                       | 65                           | 25                  | 13                           | 9                                       |

Source: Author

We suggest, based on our prototype questionnaire, as well as our initial mailing lists, to carry out more comprehensive survey among journalists, and with improved questionnaire, more global and perhaps regular survey covering foreign affairs (either as reporters, commentators, or editors). This could fulfill multiple functions. First, it would show which and how useful/essential, how reliable and how often are sources/channels used by journalists interested in foreign affairs, including other media. Second, it would show possibly overtime changing and culturally-regionally different, implicit and explicit selection news criteria in foreign coverage. All this could help in calibrating proper strategies for big data extraction and elaboration from media monitoring. Moreover, foreign service/ministries of foreign/international relations could get better understanding of up-to-date values, motivations, and principles of journalists covering foreign affairs.

The next table specifies domicile of respondents.

**Table 2: Domicile of Respondents**

| Country         | Number of<br>Respondents | Percentage |
|-----------------|--------------------------|------------|
| <b>Czechia</b>  | 6                        | 24 %       |
| <b>Denmark</b>  | 3                        | 12%        |
| <b>Hungary</b>  | 4                        | 16%        |
| <b>Latvia</b>   | 3                        | 12%        |
| <b>Slovakia</b> | 9                        | 36%        |
| Summary         | 25                       | 100%       |

With the exception of Ireland, we managed to get at least a few answers from journalists from each country. Clearly, the results are geography-wise still a bit imbalanced.

The next table illustrates the location of respondents if assigned to missions abroad.

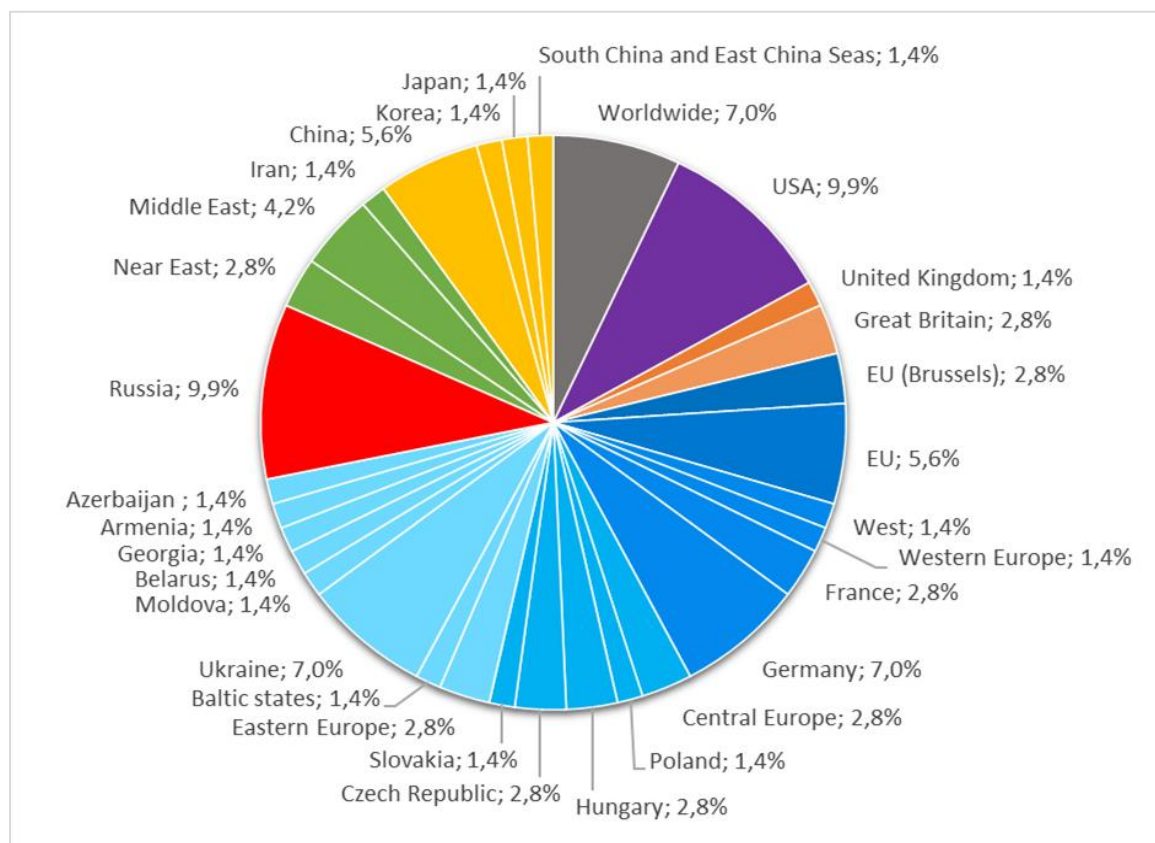
<sup>35</sup> <http://www.raosoft.com/samplesize.html>

**Table 3: Location of Respondents if Working Abroad**

| Country       | Number of Respondents | Percentage |
|---------------|-----------------------|------------|
| Czechia       | 6                     | 24 %       |
| Denmark       | 3                     | 12%        |
| Great Britain | 1                     | 4%         |
| Hungary       | 5                     | 20%        |
| Latvia        | 3                     | 12%        |
| Slovakia      | 6                     | 24%        |
| No answer     | 1                     | 4%         |
| Summary       | 25                    | 100%       |

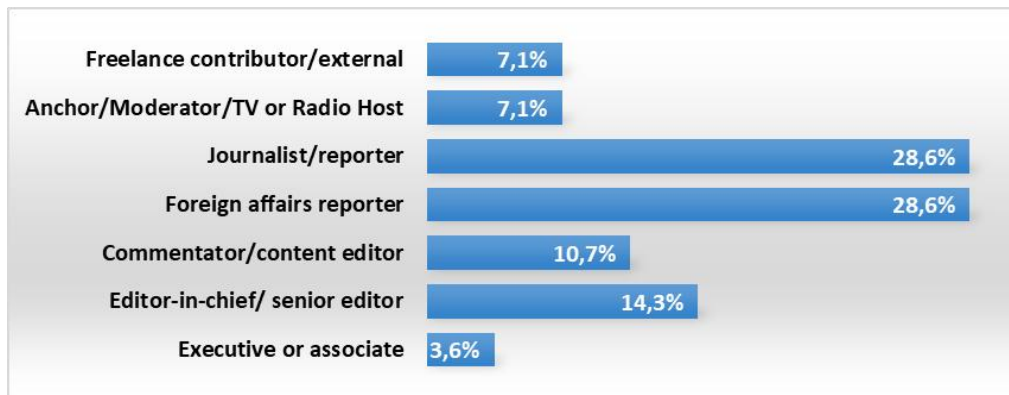
Above results suggest that our survey was mostly answered by journalists who were writing/reporting from their home country. It appears that foreign reporters are too busy with their assignments abroad.

However, more interesting results provided answers to the question “Can you please specify which country/countries or region do you usually focus professionally on in foreign affairs?” Three respondents covered ‘the whole world’, while another respondent covered just specific topic, namely climate change. Another respondent wrote that he or she covers “*EU in Brussels, USA, Russia, China, Germany, France, Britain, Slovakia, Middle East.*” However, as he or she explained, “*Order (of countries) is not according to importance, but the key (selection) factors are topics and events.*” Full variety of geographical coverage is presented in the next Chart.

**Chart 4: Specification of geographical coverage**

Analytically relevant is job specification of respondents, as can be seen in the next chart.

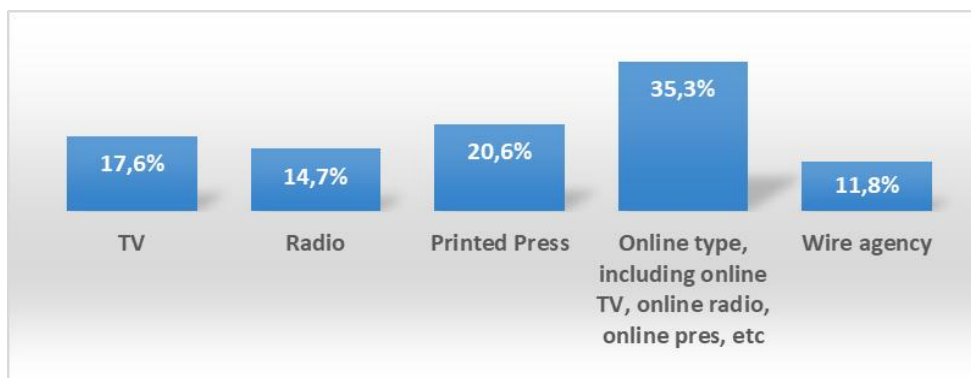
**Chart 5: Job Position of Respondents**



It can be assumed that job position can bring different perspective as well as alternative opportunity to cover foreign affairs coverage. Moreover, foreign affairs coverage impact is not only concentrated in actual reporting from abroad. It is present in commentaries, editorial policies, as well as in political discussions. Therefore, we aimed to cover broader foreign affairs coverage (i.e. not only foreign affairs reporters' perspective). Considering this perspective, our results can be seen as representing complete sample. It can be discussed whether there are too many editors – yet, at the same time, editors may have deeper knowledge and in general interesting insights into this topic.

We were also interested in media type journalists work for. Obviously, currently almost all media have online presence, but at the same time, there are only online media.

**Chart 6: Media Type**



In view of importance assigned in theory and research on foreign affairs coverage to wire agencies, perhaps higher ratio of wire agencies employees (foreign desk and foreign affairs coverage) would be appreciated. Other media types are represented adequately.

Thirdly, an analytical overview of tools and databases used for international news monitoring is provided. After theoretical exploration and experimentation (Appendix 3), and after consulting methodology in similar study by Grizāne, Isupova and Vortel (2022) we prepared two key groups of data sets for analysis.

First, it is a collection and comparison of past projects aimed at media monitoring and analyses based on large data sets, primarily focused on wire agencies outputs and global (mostly US or British) media. These approaches typically involved expensive and slow manual coding processes.

In some cases, it was surprising to find to us that some media monitoring projects that received initially positive feedback by some commentators, or pretended to be innovative projects, actually did not respond to our requests for situational update. This was the case of Swiss the FAST project (Early Recognition of Tensions and Fact Finding) that was subject to external assessment by adelphi company in 2006. This assessment was not publicly available. Neither the Swiss Agency for Development and Cooperation (that commissioned this task), nor adelphi company, offered any explanation in that regard.<sup>36</sup>

In another case, the Global Consensus Toolkit (UN Voting Coincidence Dashboard), run by students, there was provided a 4 GB data file.<sup>37</sup>

Second, we discuss articles that used GDELT Project data in three scientific databases (Sage, JSTOR and CEEOL). The aim was to identify whether the authors came to surprising/novel findings, whether there is a potential for FMP/FPA, and to discuss methodological pros and cons in cited articles (including their very availability). We selected only a few articles – those most relevant.

Third, we created an initial matrix of available modern media monitoring tools (commercial-business orientated tools) with identification of their possibly already available assessment by verified reviewers (users) or independent agencies (Appendix 4). Based on this initial overview, we further selected about 35 monitoring tools for more detailed analysis and comparison.

Furthermore, we approached almost all selected monitoring companies with request to providing a brief description of their abilities in desired area (Appendix 12). As expected, only a few cooperated. The results of this communication are attached (Appendices 13-16).

The most surprising was to find out that neither of two EU funded monitoring projects (Senti One, Determ)<sup>38</sup> nor EU own media monitoring body - Europe Media Monitor (EMM) family of applications, responded to our query. We contacted EMM repeatedly over period of two months.<sup>39</sup> Similarly, a local developer of a media monitoring tool, MNSight claimed to be the first easily accessible media monitoring system in Slovakia for general public developed

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<sup>36</sup> **From:** Andrej Skolkay <askolkay@hotmail.com> **Sent:** Friday, January 10, 2025 2:36 PM  
**To:** info.deza@eda.admin.ch <info.deza@eda.admin.ch> , **From:** Andrej Skolkay <askolkay@hotmail.com>  
**Sent:** Monday, January 6, 2025 3:16 PM **To:** info.deza@eda.admin.ch <info.deza@eda.admin.ch>  
**Subject:** Independent Evaluation of FAST International

<sup>37</sup> We approached them via their communication template at the project's website.

<sup>38</sup> **Sent:** Friday, December 20, 2024 10:12 AM **To:** support@determ.com <support@determ.com>

<sup>39</sup> **Monday, December 9, 2024 2:22 PM, To: JRC-EMM-SUPPORT@ec.europa.eu <JRC-EMM-SUPPORT@ec.europa.eu> Odoslané:** štvrtok, decembra 12, 2024 8:43:19 AM, **Komu:** JRC-EMM-SUPPORT@ec.europa.eu <JRC-EMM-SUPPORT@ec.europa.eu>, **Monday, December 9, 2024 2:22 PM To:** JRC-EMM-SUPPORT@ec.europa.eu <JRC-EMM-SUPPORT@ec.europa.eu> **Automated Answers:** Thank you for your message. I'll be back on January 7th. For urgent matters please write to JRC-EMM-SUPPORT@ec.europa.eu Kind regards Georges, <Georges.GRIVEL@ext.ec.europa.eu>, Thank you for your email. I am currently out of office. I will respond to your message as soon as possible upon my return. Kind regards, Davide A. **From:** ARTASENSI Davide, <Davide.ARTASENSI@ext.ec.europa.eu>  
**Sent:** Monday, December 23, 2024 8:32 PM, Thank you for your message. I'll be back on January 7th. For urgent matters please write to JRC-EMM-SUPPORT@ec.europa.eu , Kind regards Georges, georges.grivel@ext.ec.europa.eu, **Sent:** Monday, December 23, 2024 8:32 PM, Thank you for your email. I am currently out of office and will be back on the 7th of January. <davide.lorusso@ext.ec.europa.eu>, **Sent:** Monday, December 23, 2024 8:32 PM,



under the institutional umbrella of the University of Žilina, did not react to our requests for consultation.<sup>40</sup> Therefore, we suggest to put an official inquiry or audit (by national authorities or the European Commission designated relevant authority, e.g. ERA) into follow-up of the EU-funded or supported media monitoring tools.

In general, we also suggest to review these monitoring tools and their methodologies used, from time to time again.

Owing to unclear boundaries between international news and other areas (such as foreign trade), we included broader range of tools and databases for further description and analysis. We also included more popular and quite numerous (commercial-business oriented tools), as well as more scientific oriented tools. The key issue for detailed analysis included their **strengths, limitations, and their potential** for Foreign Policy Monitoring (FPM), or Foreign Policy Analysis (FPA). There are succinct summaries of key parameters provided to 35 selected monitoring tools of the first group (commercial-business orientated tools) Appendices 6-9) and dozens of more scientific monitoring tools in the text below.

As a follow up to these summaries, we produced more comprehensive summaries of specific tools (Appendices 10-11).

Then, we contacted the companies behind these tools to provide a one-page summary of their pros and cons. In the second round of communication, we also provided a template with more specific questions (Appendix 12). We received satisfactory answer from YouScan (Appendix 13), and more detailed materials from Semantrum (Appendix 19). In addition, we managed to get online consultation with Critical Mention of which results are attached (Appendix 13), including more general annual report. Finally, we produced minutes from meeting with YouScan (Appendix 14), Semantrum (Appendix 15) and Mention (Appendix 16).

It should be noted that all this effort was done in approximately six months of research work.

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<sup>40</sup> Directly contacted Lubos.takac@fri.uniza.sk, michal.zabovsky@fri.uniza.sk, **From:** Andrej Skolkay <askolkay@hotmail.com> **Sent:** Wednesday, November 20, 2024 9:25 AM, **From:** Andrej Skolkay <askolkay@hotmail.com> **Sent:** Wednesday, November 20, 2024 9:32 AM **To:** lubos.takac@fri.uniza.sk <lubos.takac@fri.uniza.sk> **To:** michal.zabovsky@uvp.uniza.sk <michal.zabovsky@uvp.uniza.sk>, **Sent:** Wednesday, November 20, 2024 9:25 AM, as well as the University via webportal on December 31, 2024.

### 3. JOURNALISTS' NEWS VALUES AND NEWS SELECTION PRINCIPLES

It is sometimes ignored in this type of research that origin and quality of sources to be monitored is the key issue. Therefore, to answer correctly what is being monitored in the media coverage of IR /usually covered under headlines foreign news (FN) or foreign coverage, and/or is seen as foreign affairs (FA)/, we also should explore the news values and news selection criteria used by journalists. In this way we also may discover important issues such as what are positive and negative cognitive and policy consequences of specific monitoring methods and approaches (among diverse groups of stakeholders). Furthermore, specific framing (Entman, 1993) of news media content for IR and FN with a focus on foreign policy (FP) can be debated (see discussion on framing in the Appendix 17). Thus, it is essential to explore news values and news selection criteria in IR and FA. Moreover, this exploration should also consider associated external pressures or factors influencing journalists' and media' outputs, as well as follow up internal procedures (meso and macro-levels of journalistic work). When and how can foreign news reporting be seen as biased, either due to omission or due to specific selection and presentation? And how tools and methods/methodologies used for monitoring foreign coverage, or more often, domestic coverage of FA, deal with this challenge?

It is well-known among media experts, but at the same time often ignored in monitoring of news media outputs by many researchers (as we will show later on), that news selection criteria and further elaboration of news items is subject to human (including most recently in some cases, of AI algorithmic) interventions at different levels. Therefore, this analytical report is based on belief that more thorough understanding of journalistic and media approaches to FN, FA and IR reporting is needed. This need is highlighted by the use of computer assisted analyses of large data, increasingly supported by AI. Obviously, large datasets and AI are, by definition, immune to human nuances in news selection and their further elaboration – yet at the same time, they have their own biases (algorithms are initially defined by humans, and later they tend in some cases to develop or adapt others biases).

As put by Zelizer (2005, 72), *“journalism is a phenomenon that can be seen in many ways – as a sixth sense, a contained, a mirror, a story, a child, a service, a profession, an institution, a text, people, a set of practices.”*

The news itself is a form of knowledge (Park cited in Falade, 2019, n.p.). News article answers: who, what, when, where, why and how. More specifically, who, what, when, where, and why are questions that a commentator, editor or reporter in journalism should be able to ask and answer while composing their output. If they are unable to answer any key questions, or most of these questions, successfully, the message may not be detailed enough, and audiences may lose interest in the message, or fail to be persuaded by the message. Importantly, these questions are also by and large valid of socio-psychological approaches to knowledge (Jovchelovitch cited by Falade, 2019, n.p.) as the ‘who’, ‘how’, ‘why’, ‘what’ and ‘what for’. These questions are constitutive elements of the contexts of knowledge and as such are central to communication and attribution (Falade, 2019).

Moreover, it should be noted that *“Producing international news is a collective endeavor”* (Buduchev, 2019, 54). Specifically, wire agencies serve as ‘news intermediary organizations’ (Rantanen and Kelly, 2020, 1897), therefore, they play a key role in the communication of global affairs (Rantanen, 2021; Surm, 2020). As gatekeepers, they influence and set the global news agenda (Thussu, 2000, 130; Jukes, 2022, 5), and provide information from distant events that media organizations cannot cover themselves, given the cost of international

reporting (Jukes, 2022, 2; López del Castillo Wilderbeek, 2023, 919), all cited in Ouakrat, Paterson, Rebillard, Surm, Moreira-Cesar, 2023). Without news agencies, the global media system would not be able to operate (Grüblbauer and Wagemann, 2024). Yet news agencies' practices (Paterson, 2012,1), continue to be under-researched (Rantanen, 2021, cited in Ouakrat *et al*, 2023, 127). Similarly, since the last large study of the global news flow more than two decades ago (Wu, 2000), research into the flow of news from origin to distribution is rare (exceptions include Watanabe, 2017, all cited in Ouakrat *et al*, 2023, 127). Yet new news patterns are shaping the rapidly evolving news media system. As put by Lata Singh (2024), in many cases, the breaking news has a reverse flow today from the digital media to legacy media. There also is a shift in the nature of breaking news. Instead from sudden happening, which had importance; there is a shift to urgent news, which is more catchy and provocative. Behind this a sea-change is the usage of social media by journalists as well as by media outputs consumers. Often, the use of search engines on social media to find keywords may lead to breaking news. Push towards immediacy is the key feature of this phenomenon (Lata Singh, 2024).

On the other side of 'receiving' international news/foreign coverage, there are significant differences in how audiences pay attention to international versus national or local news, too. In general, while news consumption via traditional channels (print, radio and television) has decreased on an international scale over the past decade, online consumption only grew marginally (Newman *et al*, 2022, cited in Ouakrat *et al*, 2023 p.127). Nonetheless, the value systems, based on algorithms, that underlie platforms, are directed towards profit-making through motivations to increase user news and entertainment consumption, interaction and consequently attracting advertisers. In general, constant attention is encouraged by presenting specifically targeted personalised topics. Yet this commercialised approach conflicts with journalistic values, mainly their public service or community commitment (van Dijck *et al*, 2018) as well as with journalistic values such as verification, objectivity or journalistic ethics in general (Bucher, 2018; Carlson, 2018; Napoli, 2015, all cited in Vijay & Darsana, 2023, 166-167). This, in turn, cultivates a sensibility to values and norms that reflect rather popularity than public values and common interests (Anderson, 2013; Cherubini & Nielsen, 2016; all cited in Vijay & Darsana, 2023, 166-167).

Globally (global median across 38 countries), 16% of those asked declared that they followed international news 'very closely' in 2018. Germans (29%), followed by Ghanans (27%) and South Africans (25%) seemed to be most attentive to international news (followed 'very closely'). If we also include parameter followed 'somewhat closely' and consider as threshold two thirds of followers, then Dutch were the most interested in international news (82%), followed by Australians, Germans, British and Swedish citizens. However, some European countries fared quite poorly here, especially Hungarians (49%) and Italians (53%) (not all nations were included into the survey). Twenty percent of Russians declared that they were following international news 'very closely' and 55% in total (including 'somewhat closely'). For USA, these numbers were 17% and 68% respectively (Mitchell, Simmons, Matsa and Silver, 2018).

All these data suggest that attention to international news is quite limited among quite many publics. This underscores well-known and already discussed argument about important role played by the media (especially wire agencies, and increasingly social media, in agenda setting and framing of foreign events.

Relatedly, views differed significantly among the nations on the issue of engagement and cooperation with other nations. A median of 55% wished to pay less attention to problems in other countries (and concentrate on problems at home). Only 43% believed it was best for the

future of their country to be active in world affairs. Swedes (36%), British (46%) and Germans (46%) showed less self-interest, while Hungarians (66%), followed by French (59%) showed relatively highest preference for their own problems (Wike, Fetterolf, Fagan and Gubbala, 2023). Again, these finding suggests that publics are divided in how much attention they wish their governments should pay to 'others' problems. Obviously, some issues like authoritarian and totalitarian governments in some foreign countries can cause issues like migration, climate change or at least droughts (e.g. through deforestation), terrorism and alike and then consequences of these issues can become 'own' problems countries far away.

Within this context, it should be again noted that the news media tell the public what to think about by directing attention to problems and solutions and prioritising issues of importance, a process called agenda setting (McQuail, McCombs and Cohen, all cited in Falade, 2019, n.p.) as well as via news framing. However, this is not to suggests here that there is evidence of an ongoing globalisation of either political or media discourses. In fact, the local nation-state level does not play a key role in framing of issues at the global level. National culture is, as we could see in previous paragraph, still a major determinant in defining and interpreting local political and media discourses' contents, even in presence of a public diplomacy efforts by a powerful international actor (Archetti, 2006). For example, as we have already indicated and will continue to discuss in another part of our research in detail, there are, for example, divergent political and media discourses on Russia's war in Ukraine globally (c.f. Oleinik, 2024; Brusylovska, 2024; Ravikumar and Downey, 2024). Furthermore, there are strong national and cultural differences in perspectives on education (Davis and Wilson, 2019).

Importantly, there is a general consensus that due to the lack of direct political experience and missing deeper political and historical knowledge about majority of foreign countries, their image and the foreign policy towards them are even more exclusively constituted by discourse in the mass media than it is case of local/national politics (Sarcinelli & Menzel, 2007, 328; cited by Schultz, 2013, 3-4). However, as mentioned, among some segments of population, access to other sources of information (including disinformation and misinformation) present on the Internet in general, and in social media in particular (but also disseminated via email) weakens this traditional role of major legacy media.

Nevertheless, the media can play varied roles in controlling, constraining, intervening and aiding the foreign policy decision process. Therefore, a country's foreign policy image by global media can have significant impacts on how other nations perceive it, and how the key stakeholders respond to it (Gilboa 2002, cited by Mesquita and Medeiros, 2018, n.p.).

These findings highlight importance of the present study. It should be noted that there are indications of a new ideological divide along attitudes towards globalisation, which also coincide with structural traits within the EU (Dilger, 2023). One can assume that this is reflected in media consumption (at minimum in preferences given to either liberal or more conservative type of coverage) as well as in closeness versus openness to foreign / international topics and issues.

As mentioned, in order to understand what is being monitored in the media by analysts and diplomats, it is necessary to acquire knowledge about how foreign news/coverage in general, and news about foreign policies in particular, are selected and then presented in the media coverage. The key approach that is relevant analytically is actually different from that one that might come first to mind to an observer (e.g. to turn to content analysis). Yet more important may be to find out - to go analytically more deeply - how events and issues in the media coverage are covered, or, more precisely, how they are picked (e.g. conflict reporting

from the point of view of selection for coverage) or selected within offered items (e.g. press releases), and then presented in the media. Consequently, the first step needed is to explore news selection criteria, then how selected news is elaborated (news selection procedures and processes) and then how proceeds further diffusion of selected and elaborated news items. As put by Anastasiou (2016, n.p.), *“News are made rather than selected”*.

Importantly, Parkinson (2024) notes that Dietrich and Eck (2020) had mentioned that most prior examinations of media-based data generated process have focused on within-country comparisons of scholar-coded data (Loyle, Sullivan, and Davenport, 2014; Weidmann 2016, all cited by Parkinson, 2024). Typically, in majority of cases these studies took a macro approach while acknowledging that they did not address the micro- and the meso-level of journalist and media outlet behavior (Parkinson, 2024). However, bias in some datasets appears more extensive than previously reported (Clarke, 2023, 307) and there are documented regional, country-level (Dawkins, 2021), and temporal variations in reporting bias (all cited by Parkinson, 2024).

In general, "It is observed that correspondents living in the host country tend to demonstrate a deeper understanding of the 'other's' culture, mentality and overall realities than journalists depending mainly on the official sources of their own country" (Anastasiou, 2011, 30).

To conclude with introduction into this part, there are some general comments/criticism about news media use as a data source for social scientists, including their impact, be that intentional or not. As summarised by Parkinson (2024):

*“scholars identify numerous sources of systemic bias: regime type influences media coverage (Baum and Zhukov, 2015); large-scale protest events are more likely to be reported than small-scale events (Oliver and Meyer, 1999); more violent events are more likely to receive coverage (Hendrix and Salehyan, 2012); and geographic location influences reports of human rights abuses (Caliendo, Gibney, and Payne, 1999). Journalists note that their identities influence stories they choose and are able to report (Hassan and Hankir 2019, 101). Arjomand (2022) demonstrates how foreign journalists’ relationships with local fixers shape possibilities for access and the level of detail in reporting.”*

It seems that there is quite widespread misunderstanding how media work, as well as not sufficient and proper research and follow up utilisation of the foreign coverage. As put by Jackson (2019):

*“With some exceptions IR scholars who conduct this research tend to rely on traditional qualitative methods and have been hesitant to embrace interdisciplinary collaboration - especially with those disciplines outside of the social sciences - as well as methodological pluralism across interpretive and quantitative approaches within the social sciences. This tendency shows a general lack of understanding of what new/social media might mean, not only as a source of and tool for generating information but also as a structural factor in how we conduct IR research and practice international relations.”*

However, it should be acknowledged that some researchers specialised in large data sets noted and discussed possible deeper biases in media reporting. For example, Schrodtt and Gerner (2012, 10) wrote:

*“While Reuters has some regional biases - it devotes greater coverage to areas that are of interest to institutions that can afford its services but which are not covered by other media—the fact that it is global rather than based in a single city or country reduces these substantially. Reuters and other news services such as Agence France Presse (AFP) and the BBC World Service have been criticized as providing a “white European male” perspective. Based on our unsystematic encounters with newswire personnel in the Levant, we find this criticism itself to be a white male perspective: Most of Reuters correspondents (“stringers”) are local to the areas they are reporting from, and quite a few of them (as well as much of the Reuters editorial staff) are not male. Most stringers have had a disproportionate exposure to Western education and norms - they are elites, not peasants - but they typically grew up with the local culture and language. The distinction here is important: the global news agencies are based in the capitals of the hegemonic powers, but the reporting itself (and some of the editing) comes from a very decentralized network of observers who are usually native to the areas from which they are reporting. In contrast, the hegemonic “papers of record,” such as The New York Times rely much more heavily on their own nationals to provide coverage. At best these individuals experience a long learning curve, as the autobiographical accounts of correspondents such as Thomas Friedman and Harrison Salisbury attest; at worst they are Graham Greene wannabees without a long-term commitment to a region whose understanding of the local politics has invariably been filtered through the alcoholic haze of too many expense-account dinners at five-star hotels. The differences in the quality of reporting can be profound.”*

All these procedures in information creation, elaboration and diffusion can be divided into sub-categories that will be discussed further. As will be seen, during elaboration of these issues, some new research questions have been found.

But let us first explore what does research tell us about direct and indirect impacts and positive, negative or neutral contributions of foreign correspondents work and foreign/international media coverage to foreign/national policies and developments, and in general to peaceful coexistence among nations. This brief discussion should further justify our research focus and approach. Moreover, it may bring most recent findings to stakeholders who do not necessarily follow scientific research (e.g. diplomats or journalists).

### **3.1. Impacts of Foreign Issues Coverage**

Traditionally, there are two dominant schools of thought in media–foreign policy relations (as well as in media studies in general): one claiming the existence of a strong and active media, the other arguing for a weak and passive media performance (Schulz, 2013, 4). For the latter, Bennett’s indexing hypothesis stresses the media’s passive role. Bennett argued that media coverage of political issues would follow the conditions of political elite debate. When there is political elite agreement, the media would reflect the consensus within their coverage. Conversely, when political elites disagree on certain issues, their coverage in the media would decline (cited by Schultz, 2013, 5). However, majority of these empirically-based theories have been developed in US-centred research within a two-party system. Therefore, their generality and applicability to other Western democracies is questionable (Schultz, 2013, 5). Indeed, variations of national political-historical contexts may significantly influence the media coverage (Nohrstedt *et al*, 2000, p. 383, cited in Schultz, 2013, 6). However, some findings (Ribeiro, Burian & Urdinez, 2021) from non-Western democracies suggest that parliamentary discussion about foreign policy can show a significant and positive relationship

between the news coverage a law receives and the degree of polarization among parliamentarians in Paraguay. In other words, there is the relationship between parliamentary polarisation and public interest in a bill in foreign policy due to mediation by media.

At a more general level, a long tradition of communication research on the inequalities and imbalances within international news flows demonstrated asymmetry between the Global North and the Global South (Mattelart, 2014; Schiller, 1976, all cited in Ouakrat, Paterson, Rebillard, Surm and Moreira-Cesar, 2023).

Critically, the consistency with the dominant narrative increases the perceived credibility of foreign affairs news independently of their veracity. This effect was reinforced under international conflict conditions (Bryanov *et al*, 2023).

The power status of a country is crucial for the foreign press coverage, reflecting accurately how often a particular nation is reported and receives press attention, but without effect on the size of the article (Cazzamatta, 2020, n.p., - this was similar to Staab's findings, 1990, cited in Cazzamatta, 2020, n.p). However, international news flow is not as hierarchical and U.S.-centric as it was believed earlier (Guo and Vargo, 2017).

At a more particular level, Parkinson (2024) mentions 'unreported realities' - the fact that media-derived data reflect reporters' locations, identities, capacities, and outlet priorities, rather than providing a representative sample of ongoing events. Her study revealed inconsistencies in reporting that produce unacknowledged, difficult-to-identify biases in media-sourced data that are not directionally predictable. In fact, Parkinson (2024) identified what she calls *consistency in reporting* (across domestic and international contexts)<sup>41</sup> and *constancy in reporting* (that journalists cover the same types of events in similar ways with stable rates of attention)<sup>42</sup>.

Studies on the emergence of a transnational public sphere among the EU member states suggests that the more a nation-state commits to a multinational institution, the more likely its media system follows the institution in question – we observe so called *vertical monitoring* (Trenz, 2004; Koopmans & Erbe, 2004, cited in Santos and Cazzamatta, 2024, n.p.).

The interactions between actors (both competitive and cooperative) at the European Council summit show that in these interactions, leading to shaping and legitimising European issues in and through the media, can be observed the emergence of certain transnational practices in the production of European news (Tixier, 2019).

The analyses of coverage of Muslim Summit which was held in 2019 in Kuala Lumpur revealed that reporting by Al Jazeera and Al Arabiya respectively, can be biased even in case of on a non-conflict related event. Both media sources used manipulative techniques in their reporting (including ambiguities, half-truths, exaggeration or omission) and delivered mutually contradictory message about the Summit, which seems to be in line with their state-sponsors' often incompatible regional ambitions and foreign policy. This finding confirms previous research (Gasim, 2018; Seib, 2012; Samuel-Azran, 2013; Miles, 2006; Joobani, 2014; Al Nahed, 2015; Baghernia, Mahmoodinejad, 2018; Elmasry, 2013; Abdulmajid, 2019

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<sup>41</sup> e.g. she mentions an example, "if there is a civil war in Syria and a civil war in Iraq, beliefs that urban bias affects both cases in the same way often lead scholars to proceed as though coverage of violent events will be comparatively reliable in Damascus and Baghdad and coverage in al-Hasaka or Ninewa will be comparatively lacking."

<sup>42</sup> "Yet journalists operate in dynamic environments and change reporting approaches over relatively short periods of time. Dorff, Henry, and Ley (Dorff, Henry and Ley 2023) demonstrate, for example, that Mexican journalists have decreased the specificity of their reporting on organized crime given an uptick in violence against media. The obvious implication is that an urban protest in Mexico in 2021 may be reported very differently from the same class of event if it occurred in Mexico in 2011 or in Venezuela in 2021. "

– all cited in Kosárová, 2020) that focused on Al Jazeera's and Al Arabiya's coverage of conflict-related issues.

Importantly, Russian authors claim that the alleged tendentiousness of BBC Russia in the image-making of Russia was done by selective coverage of significant events (Antoncheva and Apanasenko, 2019). We have already discussed problem with coverage of Russia, and will come back to this issue in the next phase of research. However, the question is whether this is true, and if so, whether it perhaps reflects general principles of journalistic work discussed throughout this report rather than inherent biases. Or, perhaps, journalists were correct in their description and, indirectly, prediction?

Finally, news media coverage may provide empirical equivalence to Google Trends for disease discourse. However, the flagging over the outbreak of particular Zika virus by one newspaper and not another in the sample also showed the need to use multiple sources for surveillance (Falade, 2019).

We can see that media coverage impact in IR can take different forms and have various impacts. As discussed earlier, its impact can be indirectly conditioned by ideological and cultural preferences of audiences as well as journalists' ideological preferences and cultural values. However, it is also very much influenced by journalists themselves, as we discuss next.

### 3.2. Theories and Methodologies of Foreign (IR) News Media Coverage/Agenda

The key aspects impacting foreign news coverage are **selection criteria used in media coverage**. These are often mistakenly labeled or understood exclusively as news values or there is often mixing together news values and news selection criteria (Caple and Bednarek, 2017, 3). Indeed, news values and newsworthiness have been central concepts of media and journalism research since they were first identified over a hundred years ago (Kristensen & Bro, 2024). However, as mentioned, there is difference between 'news values', 'news selection factors' and, moreover, 'newswriting objectives' (Bednarek and Caple, 2017).

Former research and approach (to news values) can also be identified as a form of 'content-based research' (Harrison, 2006, 136, cited in Caple and Bednarek, 2013, 2), while the latter research and approach (news selection factors and newswriting objectives, based on journalistic routines and non-journalistic factors influencing news agenda and its further elaboration), can be seen as based (more) on (journalistic) 'procedures-based research'. Some researches, e.g. Anastasiou (2016), call this latter approach 'the meso-sociological level'.

Of course, procedures can be analysed using content analyses, but this is an awkward approach. For understanding journalistic work, and consequently underlying principles and motivations, analysing processes is more beneficial. Systematic process analysis is a method of examining how work is done in an organization, with the aim of improving that work. It is *"especially well-suited to assessing the complex causal chains"* (Hall, 2006, 30). Indeed, Bednarek and Caple (2013, 9) wrote that news values research should be *"based primarily in ethnographic research: observations of the processes of journalistic practice, interviews with editors/decision-makers in relation to their selection of this story over that etc., rather than by examining actual news stories. However, content analysis is still a prevalent method..."*

In agreement with Bednarek and Caple (2013: 9), Anastasiou (2021: slide 20) underscores why methods of content analysis cannot sufficiently investigate 'news values' or 'news



selection', simply because content analysis studies what has already been published and ignores what could have possibly been published but was rejected. The author, having applied a sociological approach (survey and focus groups) notes that "[t]he issue was not so much whether journalists believe in 'news values', but rather whether they are (in practice) able to apply them", as well as that "[m]eaningful and interesting inferences were drawn, not so much when journalists were asked to justify their selections, but rather when asked to justify their rejections" (Anastasiou, 2021: slide 20).

Consequently, we can find a group of scholars who understand 'news values' as "*existing in the minds of journalists*" (Palmer 2000: 45; Donsbach 2004; Harrison 2010: 248; Kepplinger & Ehmig 2006: 27; Schultz 2007: 190; Strömbäck et al. 2012: 719 - all cited in Caple and Bednarek, 2013, 2). In fact, we can also add here those who understand news values "*as ideological constructs*" (Hall 1973: 184; Herman & Chomsky 1994: 298; McChesney 1999; Curran & Seaton 2003: 336 - all cited in Caple and Bednarek, 2013, 2). It is questionable why Caple and Bednarek (2013, 2) did not merge these two groups representing two identical concepts ("*existing in the minds of journalists*" and "*ideological constructs*"). This is a group of scholars who in essence talk about news values.

It should be mentioned that also Kepplinger & Ehmig (2006, 28) suggested a two-component theory of news selection comprising the basic elements of news **factors** and the news **value** of news factors. They call relative impact of characteristics of news stories – the news factors – on the selection of news stories as news value. In their view, news values are not qualities of news stories, but judgments of journalists about the relevance of news factors, while news factors are by definition 'qualities of news stories', which 'might be the degree of damage reported, the status of people involved, the geographical distance between the event and the place where the recipients of the news stories live' (Kepplinger & Ehmig, 2006, 27). This theory seems to be similar to Caple and Bednarek with difference being that, perhaps, it is more transparent to talk about content and procedures differences in news production.

The other group of researchers understands 'news values' differently. It primarily talks about **procedures**. This group also appears to be less frequent in theoretical studies - in contrast to empirical studies. It discusses news values as 'routine and highly regulated procedures' (Golding & Elliot 1979: 114 - cited in Caple and Bednarek, 2013, 2). Again, in contrast to enumeration used by Caple and Bednarek (2013, 2), we can add here a group of scholars who discuss more neutrally "*systems of criteria central to the decision making process as to what will or will not be selected as news*" (Westerståhl & Johansson 1994: 71; Palmer 2000: 45 – all cited in Caple and Bednarek, 2013, 2). It does not seem that there are radically different concepts, concept of 'routine and highly regulated procedures' and concept of "*systems of criteria central to the decision making process as to what will or will not be selected as news*". Thus, this is a group of scholars (see also scholars mentioned in Harcup & O'Neill, 2016, n.p.) who in essence talk about 'news selection' (that includes news values) and at least some of them discuss, follow-up 'news treatment' (often done in a form of 'framing').

Thus, in contrast to, or, in some cases, in addition to loosely defined news values group, there is a group of supporters of more analytical components that we can put under common term 'procedures'. They study journalistic routines and non-journalistic factors influencing news agenda and its further elaboration (i.e. procedures and non-journalistic factors). This second analytical group believes that content analysis of news outputs, including those done by academics, often fails to make a clear distinction between news values, news selection

criteria and follow-up news treatment (particular presentation following newswriting objectives and based on particular framing)<sup>43</sup>, basically reflecting procedures.

We come back to these indicators and factors in the next sub-section.

Another salient generic set, as it appears, of little discussed factors in depth – they are usually just briefly mentioned (e.g. Harcup & O'Neill, 2016), includes **availability of sources** or **ability of journalists to get access to them**. This issue is particularly pronounced in authoritarian and totalitarian regimes, and in particular in IR/foreign news coverage. This topic can also belong to categories of journalistic procedures and non-journalistic factors.

Ironically, it was Einar Østgaard who published in the same volume of the *Journal of Peace Research* (1965, 2) as Galtung & Ruge, the idea that 'free flow of news' is influenced by conditions that apply both within the news production process and by factors external to it, not least political and economic factors, such as news sources, cost of production, editorial policy and market orientation (p. 44), which have a hampering effect (p. 45) on the flow of news (cited in Caple and Bednarek, 2013, 8).

As put by Caple and Bednarek (2013, 8) his logical suggestion was "*largely ignored in most subsequent research on news values.*"

This idea has re-emerged again in the last 20 or so years. The relevant research was summarised (but not completely) by Harcup & O'Neill (2016, n.p.):

*"News selection is also subject to the influence of journalistic routines such as issues of access and meeting deadlines (Schultz 2007; Phillips 2015); competition for exclusives (Allern 2002; Schultz 2007; Phillips 2015); the influence of proprietors and advertisers (Caple and Bednarek 2015); external influences including the role of public relations professionals and "spin doctors" (Brighton and Foy 2007); the belief systems of journalists as a result of their social environment (Donsbach 2004; Phillips 2015); and the influence of peers within the workplace or "habitus" (Bourdieu and Wacquant, 1992)."*

This last issue (the influence of peers within the workplace or 'habitus') is closely related to the degree of autonomy afforded to a journalist making choices about news (Schultz 2007, 197; cited by Harcup & O'Neill, 2016, n.p.). This, in turn, depends on the type of news organisation journalists work for, the type of journalism they produce, and the organisational level or professional status, at which they operate (Schultz 2007, 197; cited by Harcup & O'Neill, 2016, n.p.).

In addition, recent eruption of online news distribution and access, and related audience clicks affect news (Welbers *et al*, 2015, Tien Vu, 2014 cited by Harcup & O'Neill (2016, n.p.).

Table 4 summarises journalistic routines influencing news agenda in IR/FA coverage, while Table 5 summarises non-journalistic factors influencing news agenda in IR/FA coverage.

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<sup>43</sup> Framing is particular relevant journalist method of presentation news in IR/FP, especially as far as it concerns framing internal and external conflicts and wars, as well as framing symbolic actions by foreign powers. It uses numerical, linguistic, audio, visual and audiovisual means.

**Table 4: Tentative List of Journalistic Routines influencing News Agenda in IR/FA coverage**

| Indicators                                                                                                                    | Supported by research                                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Access to sources/Lack of more important news                                                                                 | Schultz, 2007, Phillips, 2015, Anastasiou, 2016                                                                                                       |
| Deadlines                                                                                                                     | Schultz, 2007, Phillips, 2015                                                                                                                         |
| Competition for Exclusiveness                                                                                                 | Allem 2002; Schultz 2007; Phillips 2015                                                                                                               |
| The belief systems of journalists                                                                                             | Donsbach 2004; Phillips 2015                                                                                                                          |
| ‘Habitus’                                                                                                                     | Bourdieu and Wacquant 1992; Schultz, 2007<br>Armoudian, 2016, 131–2), Arjomand, 2022, 65–7, Karam and Hankir, 2019, 233) all cited by Parkinson, 2024 |
| Framing                                                                                                                       | See Appendix 17                                                                                                                                       |
| Whether great part of public would like or not it published                                                                   | Anastasiou, 2016                                                                                                                                      |
| How complex is it for readers; whether or not easy for journalists to explain                                                 | Anastasiou, 2016                                                                                                                                      |
| Whether it concerns a marginal population segment rather than average citizen                                                 | Anastasiou, 2016                                                                                                                                      |
| Whether it is opinion rather than hard fact (the latter is preferred)                                                         | Anastasiou, 2016                                                                                                                                      |
| Whether it is more suitable for special environment section; not general news (Or even for social media; not mainstream ones) | Anastasiou, 2016                                                                                                                                      |

**Table 5: Tentative List of Non-Journalistic Factors influencing News Agenda in IR/FA coverage**

| Indicators                                                                                                   | Supported by research                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Fewer resources to overseas reporting and rely on reporters who ‘parachute’ in only to cover specific events | (Arjomand, 2022, 1–3; Khalaf and Hankir, 2019, 259, Martin, 2012), Schwartz (2018), all cited in Parkinson, 2024                        |
| Risks to journalists                                                                                         | e.g. Armoudian, 2016, 2–3, (Sinjab, 2019, 199), cited in Parkinson, 2024                                                                |
| The influence of proprietors and advertisers                                                                 | Caple and Bednarek, 2015, Grossman, Margalit, and Mitts 2022 in Parkinson, 2024                                                         |
| (Other) External influences                                                                                  | Brighton and Foy 2007                                                                                                                   |
| Degree of autonomy afforded to a journalist                                                                  | Bourdieu and Wacquant 1992; Schultz, 2007                                                                                               |
| Audience clicks, including general consumers influences                                                      | Welbers <i>et al.</i> 2015; Tien Vu, 2014; Boydston, 2013; Cook, 1998, Norris, Norris 1995, Newman 2022, 6 all cited in Parkinson, 2024 |

As an example of recent empirical proof of above mentioned indicators, we present country specific findings about the impact of political actors on foreign news coverage as seen in indicator ‘access to sources’. Obijiofor & M’Balla-Ndi Oelgemoeller (2023) examined challenges faced by Nigerian correspondents and how they navigate the difficulties they face on the job. Perhaps most interestingly, foreign journalists visiting Nigeria on official assignment were respected and accorded special privileges and support that were not offered to their Nigerian counterparts. In contrast, local reporters who worked for foreign media experienced high level of difficulty, contempt, and discrimination to access information. Moreover, barriers to foreign news reporting were impacted by correspondents’ gender, race, and skin colour. This finding nicely illustrates potentially heavy impact of local conditions on work of local foreign correspondents versus visiting foreign correspondents. It may be that such dire local conditions for local foreign correspondents may fundamentally influence our

debate about news criteria and in particular, about news values – or foreign news produced, and ultimately, results we get from monitoring of either local or international media. This issue seems to be unexplored. However, ultimately, we are interested in reporting on developments and changes in foreign policy.

Similarly, finding that Francophone African countries treated information as state property that should be protected while Anglophone African countries were more liberal in the way they handled information and in the way they related with journalists (Obijiofor & M'Balla-Ndi Oelgemoeller, 2023) may illustrate factor of 'External influences' as indicated in Table 5. The authors explained this factor by colonial cultural legacy.

Finally, there was noticed tension between Nigerian foreign correspondents and senior editors in their overseas head offices. Local foreign correspondents accepted editorial rights of the senior editors to make news decisions. However, they also felt there were sometime too heavy interventions, possibly leading to misrepresentation of facts with potential to trigger diplomatic tension internationally. This intervention could be placed among “*'habitus' + degree of autonomy afforded to a journalist*” (Obijiofor & M'Balla-Ndi Oelgemoeller, 2023).

At perhaps the ultimate (human) level of information-communication chain (micro level), follow **professional competences of journalists to evaluate and interpret often contradictory and incomplete information**, usually under time pressure. This also appears little discussed and researched issue academically.

One can perhaps also include here three highly relevant, but little discussed, constituents, in particular in IR/foreign news coverage. Let us start with „known unknowns”. These may include things, issues, developments and topics a journalist covering FA and IR is aware of but does not understand them sufficiently, e.g. local politics, tribal divisions.

There also are “unknown knowns”. These cover things, issues, developments and topics a journalist covering FA and IR is not aware of but understands them, e.g. grand corruption scale.

Finally, there are “unknown unknowns”. These include things, issues, developments and topics a journalist covering FA and IR is neither aware of, nor understands them, e.g. conspiratory plan of military leadership, or planned neighbouring country invasion.

All this information is out of knowledge or understanding sphere of journalists. Yet, undoubtedly, these can be among crucial pieces of information in foreign coverage. Can perhaps AI and big data analysis help here?

As put by Örnebring (2019), “*skill is rarely defined and that analyses of skill rarely reference the wider sociological and psychological literature on skill, expertise, and competence.*” Moreover, “*There is a long-standing conflict between ...two “skill goals” of journalism education, where vocational or practical skills are often viewed as (at least potentially) in opposition to academic or theoretical skills*” (Örnebring, 2019).

Analytically, one can identify reporting skills, writing skills and accuracy skills. More broadly, the competencies of journalists include not only skills, but first of all (general and more specific) knowledge, followed by technical skills (hard skills), non-technical skills (soft skills) as well as factors that influence journalists' competencies, namely the context of the journalistic work environment (Yudhaprimesti, Bakry, Sos, 2022).

Let us cite Yudhaprimesti, Bakry and Sos (2022, 32) more extensively:

*“...there are two categories of competency elements, namely generic competency elements and contextual competency elements. Generic competency elements are basic competency elements that affect the ability of journalists to be able to carry out their*

*duties, functions and roles professionally; regardless of the place or field of work assignment, the character of the media where they work, or the external environment outside the media that affects the ability of journalists to carry out their duties. Generic competency elements can be further broken down into competency levels. The basic level is required by young or entry-level journalists. The next level is required by journalists at the level above. Competencies for young journalists are needed as capital to carry out individual tasks or as team members, while at the upper levels the competency demands become higher because they involve more complex demands such as broader and stronger knowledge and reasoning, as well as leadership and managerial abilities. Despite finding differences in competency needs at each level, this study does not strictly divide and conclude journalists' competencies based on these levels because basically the different levels of needs will be contextual in nature."*

However, Estella (2020, cited by Yudhapramesti, Bakry and Sos, 2022) stated that journalists' competencies are situational - competencies can differ due to the passage of time, differences in social, political and economic factors. For example, there is a completely new set of competencies - *algorithm literacy* that defines individuals' understanding of algorithms and their effects (c.f. Gagrčin, Naab & Grub, 2024). Algorithm literacy helps to explain substantial transformation in how content is distributed, consumed, and interacted with on various platforms.

Be that as it may, these skills and knowledge (and other factors) are embedded into a common framework that Shoemaker and Reese (1996, 11; cited by Deuze, 2005, 445) call "*a dominant occupational ideology of journalism*" or "*a shared occupational ideology*" (Deuze, 2005, 445-446). As a result, "*journalists in elective democracies share similar characteristics and speak of similar values in the context of their daily work, but apply these in a variety of ways to give meaning to what they do.*" (Deuze, 2005, 445). This explanation helps us understand why the US, the UK and the German press did not scrutinize dissent marginalization and rarely provided assessments of NATO expansion that went beyond the parliamentary consensus, as pointed out by already cited Zollmann (2024, 380).

In general, "*Knowledge in the context of the impact it may have on journalism can therefore be seen as an inventory and discussion of one's frames of reference, one's resources of information and life experiences when it comes to multicultural issues.*" (Deuze, 2005, 453, italics added). This seems to be a bit limited list of indicators that impact knowledge and in effect, final outputs produced by journalists. For example, as discussed earlier, there is a context of peer and management pressure that impact journalistic outputs.

Since we are interested in (ideally scientific, or at least for foreign policy relevant) utilisation of specific types of journalistic outputs, it may be useful to cite here more extensively, journalists' practices for finding, selecting, verifying, and communicating research, as well as the motivational and contextual factors that influence these practices, as identified by Fleerackers (2023):

*"The findings suggest that journalists use research for a combination of practical and strategic reasons — ranging from improving the accuracy of their reporting to establishing credibility — but that their use is hindered by conceptual and financial access barriers, as well as time and resource constraints. Journalists rely on a mix of active and passive strategies to find research, with a high reliance on press releases and expert sources. Decisions about which studies to cover are closely tied to*

*perceptions of prestige and credibility, with research published in top-tier journals receiving the bulk of the coverage — often with minimal vetting. Overall, verifying research appears to be a challenge for journalists, many of whom rely on heuristic cues and the peer review process rather than rigorous investigation. Finally, journalists tend to frame research findings as confirmed facts, communicating uncertainty selectively to enhance the news value of their coverage.”*

All this puts questionmarks on the watch-dog role of journalists. Apparently, there is too much reliance on established 'truths', as discussed earlier. In fact, there is no bullet-proof method for assessing quality of the scientific output (e.g. Horák, 2024). For example, impact factor of journal is not a suitable metric to measure the quality of research papers (Salimi, 2017).

Palmer (2017) found that news fixers (the locally based contacts who become paid for helping foreign reporters translate interviews, build contacts, and navigate the cultural contexts) have the potential to facilitate more complex and productive 'global-local exchanges'. Yet, these media co-workers were undervalued and underprotected by both the editors and foreign correspondents, claims Palmer (2017).

It should be noted that in some countries there are no explicit competences or skills requirements for journalists (e.g. in Slovakia), while in other countries, there are the Journalist Competency Test (e.g. in Indonesia or in Italy). Moreover, Italian journalists are required by law to become members of the *Order of Journalists* by passing a professional exam since 1963.

### **3.3. News Values and News Selection Factors in Media Research**

In this part we focus at more recent research, covering about two decades. However, it goes without saying that a classic work and definition must be mentioned. This is, in addition to already mentioned book *Public Opinion* by Walter Lippmann that was published in 1922 (in particular, the first sentences in the first part *The World Outside and the Pictures in our Heads*, where he described how a lack of fast information and communication did (not) influence behaviour of people with different nationalities although they were technically at war), Galtung & Ruge seminal 1965 study focused on assessing foreign news reporting in four Norwegian newspapers.

Galtung & Ruge proposed a set of 12 factors universally considered worthy of reporting as 'news'. Eight factors are to be understood as 'culture-free', whereas the four factors are culture-bound.

The eight 'culture-free' elements are: Frequency, Threshold (absolute intensity, intensity increase), Unambiguity, Meaningfulness (cultural proximity, relevance), Consonance (predictability, demand), Unexpectedness (unpredictability, scarcity), Continuity, Composition.

The four culture-bound elements are: Reference to elite nations, Reference to elite people, Reference to persons, and Reference to something negative.

In Anastasiou's view (2025, personal communication),

*“(following that of many prominent scholars: McQuail, Hall, Hartley, Golding, Elliott, Rosengren, Staab, Allern) news stories, in the way they are constructed include and demonstrate news values; not events. Events may be very complex, so journalists select what*

*aspects of them to include in their stories. Or events may be too simple, so journalists may choose to combine them with other events and, thus, construct their news stories. In both of the above cases, news values do not exist in the events, but they are the result of journalistic decisions. Given my above view, I argue that the hypotheses that are testing are more or less tautologies. That is, if an editor decides to include in a story references to elite nations, elite persons, unexpected developments and negative news, then of course there will be an additivity effect, because the editor will have decided to include all these news values in their story. However, they could have also chosen to not include all these in the story, but rather focus on a single aspect of an event. It would not be the event, then, that would define the total news value of the story, but rather the editorial decision. One could still follow used analytical rationale, but that would require to assess how Galtung and Ruge's hypotheses apply in the construction of stories; not in the selection of news."*

We acknowledge this criticism, but unfortunately, there was no research time and intention to analyse the construction of stories in this study.

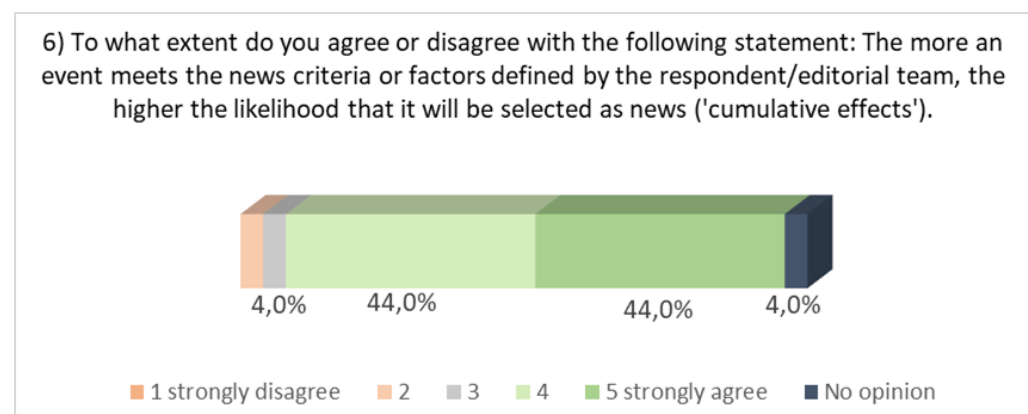
Galtung & Ruge also mentioned the '**cumulative effects**' of the news values /the more an event satisfies the criteria/news factors, the more likely that it will be registered as news (selection)/, as well as '**distortion effect**' (what makes the event newsworthy according to the defined news values will be accentuated), **the Additivity Hypothesis** ('The higher the total score of an event, the higher the probability that it will become news, and even make headlines') and finally **the Complementarity Hypothesis** (an event low on one dimension or news factor will have to be high on another factor 'complementary' dimension to make it into the news).

The complementarity and additivity hypotheses were tested already by Peterson (1981), both were supported by the data.

In this study, we tested all four hypotheses (we simplified the language used) at a sample of 25 journalists from 5 countries (as mentioned, small nations sample, European bias, foreign coverage journalists+editors+senior editors/editors in chief).

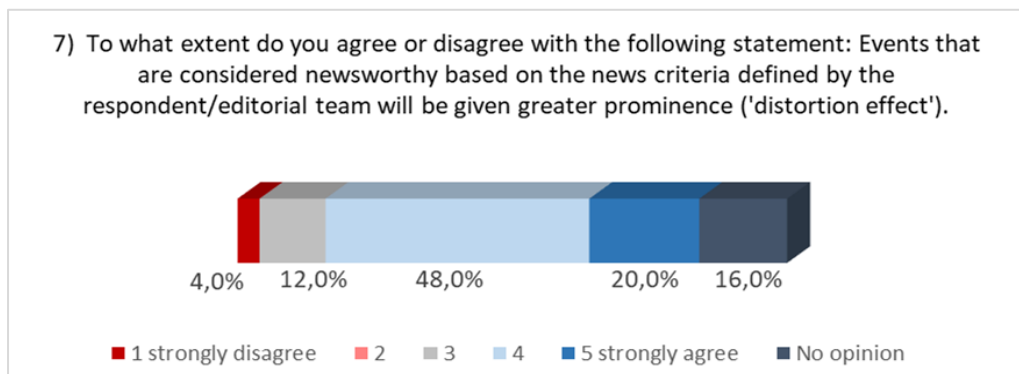
To start with, we tested the '**cumulative effects**' Hypothesis.

#### Chart 7: Cumulative Effects Hypothesis Verification



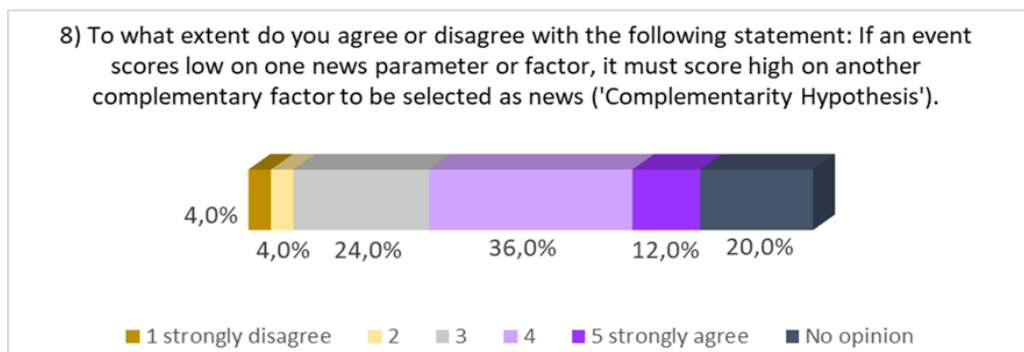
This hypothesis ('cumulative effect') has been confirmed. Almost 90 % of respondents (5+4 combined) agreed with it.

**Chart 8: Distortion Effect Hypothesis Verification**



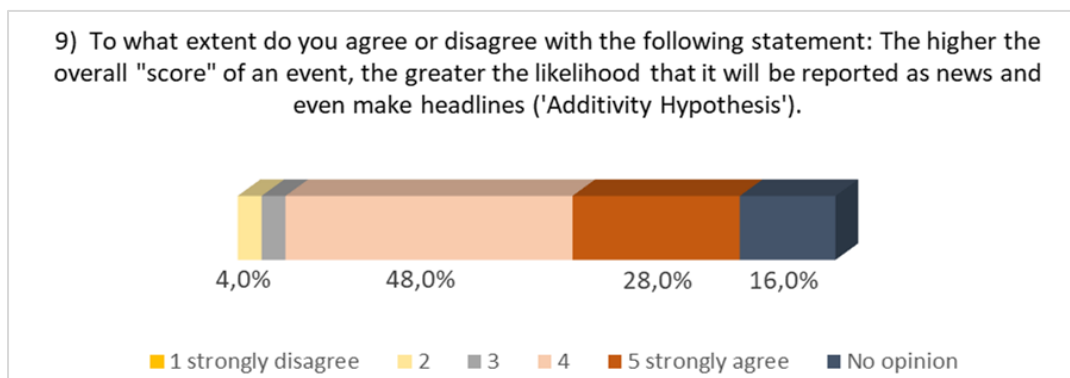
The distortion effect hypothesis is supported by two thirds of respondents (5, or strongly agree by a sixth of respondents, while value 4 was expressed by about a half of respondents). However, it would be beneficial to learn arguments of those 5% who disagreed. This would be a good research question for follow up research in particular with those who thought this way, or at least with those respondents who agreed to participate in follow up in depth discussion.

**Chart 9: Complementarity Hypothesis Verification**



The complementarity hypothesis seems to be more controversial one than the two previous ones, since less than half of the majority of respondents supported it (a sixth of respondents voting for value 5, and about a third of respondents voting for value 4). These results may suggest, considering the simplest explanation, that, for example, there may be an event that scores on average in a few parameters and still becomes news.

**Chart 10: Additivity Hypothesis Verification**





Additivity hypothesis actually supports explanation of the complementarity hypothesis controversial results.

In summary, three out of four original Galtung & Ruge hypotheses have been confirmed. However, this was not unanimous or equally strong confirmation. Complementarity Hypothesis seems to be more controversial. It would be useful to discuss difference and in particular disagreement with selected respondents. In part, explanation may be based on unfamiliarity with these concepts (as mentioned, we tried to simplify language used).

As mentioned, theoretical studies often fail to adequately distinguish between news values and news selection criteria. Interestingly, Galtung & Ruge preferred or introduced terms 'news factors' and not news values. Follow up discrepancy in terminology used can be seen in the following discussion.

Harcup & O'Neill (2001) found that, with exceptions to every rule, news stories must generally satisfy one or more of the 10 requirements, if they are to be selected: *The power elite*: Stories concerning powerful individuals, organisations or institutions; *Celebrity*: Stories concerning people who are already famous; *Entertainment*: Stories concerning sex, showbusiness, human interest, animals, an unfolding drama, or offering opportunities for humorous treatment, entertaining photographs or witty headlines; *Surprise*: Stories that have an element of surprise and/or contrast; *Bad news*: Stories with particularly negative overtones, such as conflict or tragedy; *Good news*: Stories with particularly positive overtones, such as rescues and cures; *Magnitude*: Stories that are perceived as sufficiently significant either in the numbers of people involved or in potential impact; *Relevance*: Stories about issues, groups and nations perceived to be relevant to the audience; *Follow-up*: Stories about subjects already in the news; *Newspaper agenda*: Stories that set or fit the news organisation's own agenda (Harcup and O'Neill, 2001, 278–279).

Harcup & O'Neill in their follow up study (2016) supported the importance of *visuals*, already highlighted by cited Caple and Bednarek (2015) and Dick (2014). This finding was supported by their analysis of news items in both newspapers and on the most shared social media. Another impact of social media on news values emerged in their study, supported by cited research of Olmstead, Mitchell, and Rosenstiel, 2011; Hermida *et al*, 2012; Phillips, 2012; Tien Vu, 2014; Welbers *et al*, 2015). As they put it, the findings point towards the importance of a concept of 'shareability' on social media. Thus, they constructed an updated list of contemporary news values. These include *Exclusivity*: Stories generated by, or available first to, the news organisation as a result of interviews, letters, investigations, surveys, polls; *Bad news*: Stories with particularly negative overtones such as death, injury, defeat and loss; *Conflict*: Stories concerning conflict such as controversies, arguments, splits, strikes, fights, insurrections and warfare; *Surprise*: Stories that have an element of surprise, contrast and/or the unusual about them; *Audio-visuals*: Stories that have arresting photographs, video, audio and/or which can be illustrated with infographics; *Shareability*: Stories that are thought likely to generate sharing and comments via Facebook, Twitter (now X) and other forms of social media; *Entertainment*: Soft stories concerning sex, showbusiness, sport, lighter human interest, animals, or offering opportunities for humorous treatment, witty headlines or lists; *Drama*: Stories concerning an unfolding drama such as escapes, accidents, searches, sieges, rescues, battles or court cases; *Follow-up*: Stories about subjects already in the news; *The power elite*: Stories concerning powerful individuals, organisations, institutions or corporations; *Relevance*: Stories about groups or nations perceived to be influential with, or culturally or historically familiar to, the audience; *Magnitude*: Stories perceived as sufficiently significant in the large numbers of people involved or in potential impact, or involving a degree of extreme behaviour or extreme occurrence; *Celebrity*: Stories concerning

people who are already famous; *Good news*: Stories with particularly positive overtones such as recoveries, breakthroughs, cures, wins and celebrations; *News organisation's agenda*: Stories that set or fit the news organisation's own agenda, whether ideological, commercial or as part of a specific campaign.

In Anastasiou's view (2025, personal communication),

*Tony Harcup ... made clear that news values may not necessarily apply in news selection, but rather in news construction. Harcup and O'Neill (2017: 1482-83) clearly keep reservations about the application of their suggestions in news selection, as is obvious (to me) in the following conclusion of their relatively recent article.*  
*[T]here is a need for empirical research into whether or not **news organisations' desire to have their output widely shared on social media may be impacting on selection decisions**; and, if so, with what consequences? [...] It is important to reiterate that **the above criteria can be contested since they are also governed by practical considerations**, such as the availability of resources and time, and subjective, often unconscious, influences, such as a mix of the social, educational, ideological and cultural influences on journalists, as well as the environment in which they work, their position in the workplace hierarchy and the type of audience for whom journalists are producing news. These can cause fluctuations, with **certain news values rising up the hierarchy in different situations**, which may explain why **events with similar intrinsic news values are not always given the same prominence**. [...] In other words, who is selecting news, for whom, in what medium and by what means (and available resources), may well be as important as whatever news values **may or may not be inherent in any potential story**. Thus, we reiterate that the above news value taxonomy should be seen as a tool for analysis and further research—designed to provoke discussion and, indeed, contestation—**not something to be churned out as if it is the last word on the subject**. And, whenever the question arises of **why a particular story is seen as newsworthy**, there will always remain an element of truth to the reply: **"It just is!"***

Schultz (2007, cited in Harcup & O'Neill, 2016, n.p.), based on study among Danish TV journalists, argued that six news values dominate: timeliness, relevance, identification, conflict, sensation and exclusivity. Interestingly, Schulz identified three core types of news value: a) undisputed, taken-for-granted and rarely articulated news values, ('doxic news values'); b) explicit news values: ba) either dominant, undisputed orthodox values, or bb) debatable, dominated (heterodox) news values.

Brighton and Foy (2007, cited in Harcup & O'Neill, 2016, n.p.) identified following news values: Relevance; Topicality; Composition; Expectation; Unusualness; Worth; and External influences. They made important remark that news values will vary from medium to medium.

But what does actual empirical research tell us about these, mostly theory-led thinking?

Cazzamatta (2020) explored the main developments in foreign reporting of Latin America by the quality German publications (SZ, FAZ, Der Spiegel, and taz). Based on a content analysis of 3.831 articles published between 2000 and 2014, the most common news factors were 'magnitude', 'power status', 'economic proximity', and 'personification'. Additionally, she identified a decrease in hard news over the years (6 % within Politics and 8 % amidst Economy). A tendency towards tabloidisation was not confirmed since factors such as personification and crisis remained constant.

For two Syrian newspapers, news values, business ethics, political power, editorial policy and the ownership were the most significant factors in selecting news. Editor in chief played

an essential role in the final decision to publish in these newspapers, while editors were fulfilling a limited role in this process (Sbeira, 2017). We can see here mixing up news values, news selection factors (e.g. business ethics) and newswriting objectives (e.g. editorial policy).

In general, ‘hard news’ tends to include generally undisputed ‘orthodox’ news values, while the news values associated with ‘soft news’ are less dominant and may be more open to contestation (Schultz 2007, 196, cited by Harcup & O’Neill, 2016. n.p.). ‘Hard news’ includes more serious and consequential stories (e.g. including Power Elite), while ‘soft news’ is considered closer to entertainment and less urgent (e.g. having celebrity status and entertainment aspect).

Based on this brief overview, we present a more transparent overview. In some cases, an attempt was made to put suggested similar values/indicators in the same analytical category for internal cohesion and brevity.

**Table 6: Taxonomy of news values and news selection factors in IR/FA coverage**

| Author/<br>Indicators                                | Harcup &<br>O’Neill (2001) | Schultz<br>(2007) | Brighton and<br>Foy (2007) | Harcup &<br>O’Neill (2016) |
|------------------------------------------------------|----------------------------|-------------------|----------------------------|----------------------------|
| <b>The power elite</b>                               | X                          |                   |                            | X                          |
| <b>Drama</b>                                         | X                          |                   |                            | X                          |
| <b>Celebrity Status/<br/>Entertainment Aspect</b>    | X                          |                   |                            | X                          |
| <b>Surprise/Unusualness</b>                          | X                          |                   | X                          | X                          |
| <b>Negativity/Bad news</b>                           | X                          |                   |                            | X                          |
| <b>Positivity/Good news</b>                          | X                          |                   |                            | X                          |
| <b>Magnitude</b>                                     | X                          |                   |                            | X                          |
| <b>Relevance</b>                                     | X                          | X                 | X                          | X                          |
| <b>Follow-up/Expectation</b>                         | X                          |                   | X                          | X                          |
| <b>Outlet agenda/Worth</b>                           | X                          | X                 | X                          | X                          |
| <b>Timeliness /Topicality</b>                        |                            |                   | X                          |                            |
| <b>Conflict</b>                                      |                            | X                 |                            | X                          |
| <b>Composition</b>                                   |                            |                   | X                          |                            |
| <b>External influences</b>                           |                            |                   | X                          | (x)?                       |
| <b>Arresting audio-visuals</b>                       |                            |                   |                            | (x)                        |
| <b>‘Shareability’ on social media</b>                |                            |                   |                            | (x)                        |
| <b>Exclusivity/Competition for<br/>Exclusiveness</b> |                            |                   |                            | (x)                        |

It should be mentioned that among above mentioned indicators only ‘Relevance’ and ‘Outlet agenda/Worth’ seem to be shared among all cited researchers. However, these are also too generic indicators, possibly better defined as news selection criteria rather than inherent news values.

Possibly, also indicators (‘values’) ‘Exclusivity/Competition for Exclusiveness’ may be seen as belonging to a rather different analytical category discussed in the next part. These indicators are in general put in another table, discussed next. However, since cited authors, e.g. Brighton and Foy (2007), put the first indicator (value ‘External influences’) together within their general news values taxonomy, we keep them in the Table above, in order to

preserve consistency of their categorisation of news values. This comment is also relevant for Harcup & O'Neill (2016) update and use of value of 'shareability' on social media. In the next table, this indicator (criterion rather than value) is mentioned as 'audience clicks'. It should be pointed out that there seems to be important shift from newsworthiness to shareworthiness. Yet traditional criteria of newsworthiness still play a role in predicting the number of shares (Trilling, Tolochko and Burscher, 2017). This finding again makes weaker attempt to include 'shareability' among unique news values.

Another factor ('value') is 'Competition for Exclusiveness' as suggested by Harcup & O'Neill (2016). Again, this 'value' seems to belong to category of journalistic routines and other non-journalistic factors influencing news agenda. As put by Anastasious (personal communication, 2025), "*As all journalists know, an exclusive story would most definitely be given greater prominence even if it did not refer to the most important event of the day, simply because it would make the publication distinguish itself from the competitors, thus possibly attracting attention and gaining credibility.*"

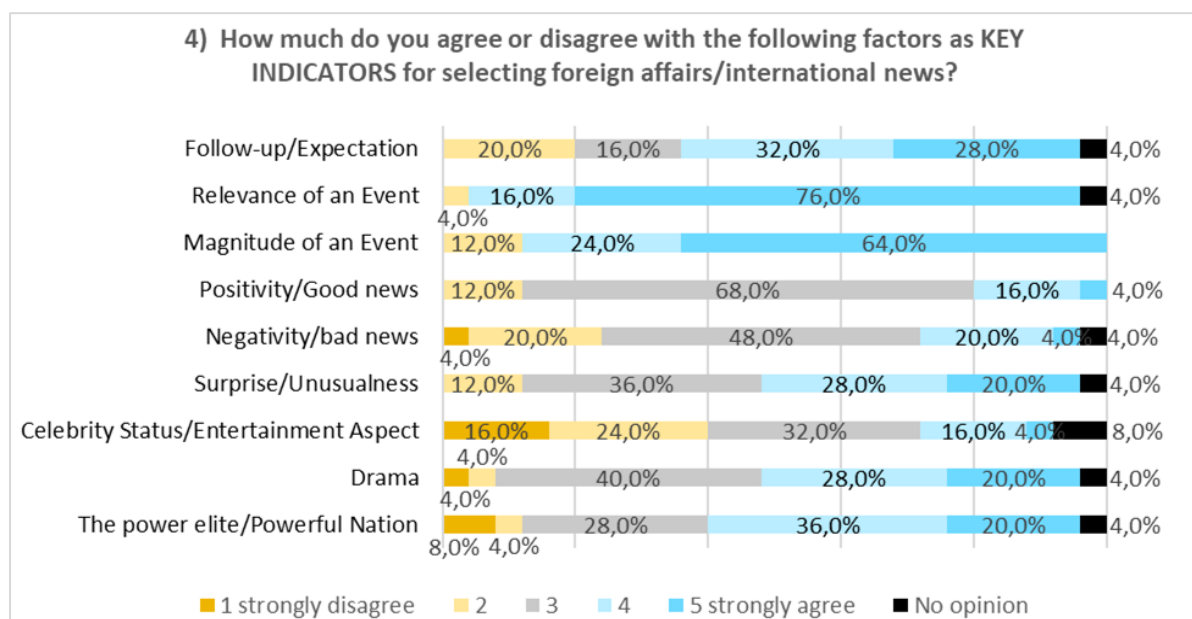
It can also be argued that increasingly non-journalistic values and factors impact news criteria. In fact, as mentioned, there seems to be difference, sometimes unacknowledged by researchers, between journalistic news values and more pragmatic journalistic routines.

Then there remains a specific 'value' - 'Arresting audio-visuals'. Is this indeed a new 'value' as per se, or is it also indicator that belongs (should belong) to category of pragmatic journalistic routines?

We put all controversial indicators (if understood as values) in brackets, to highlight their questionable categorisation within this category.

We tested the validity and importance of these indicators and procedures in our survey, with results seen in the Chart 11 Key Indicators for Selecting Foreign Affairs / International News and Chart 12 Factors Influencing Selection (more or less news values) and Chart Coverage of Foreign News and International Affairs (more or less selection criteria and journalistic procedures).

**Chart 11: Key Indicators for Selecting Foreign Affairs / International News**



Interestingly, there is only very limited match between theory on indicators for selecting FA and IR according to our results. There seems to be majoritarian and strong consensus on

key indicators for selection of news items in FA and IR only for three or four indicators. These are **‘relevance of an event’**, **‘magnitude of an event’** and **‘follow-up/ expectations’**.

**‘Relevance of an event’** - whatever it may mean for a journalist (subject to further research) – is the key factor (76 % highlighted this as the top indicator, while another 16 % of respondents gave it 80 % relevance) for selection of a new item in FA/IR.

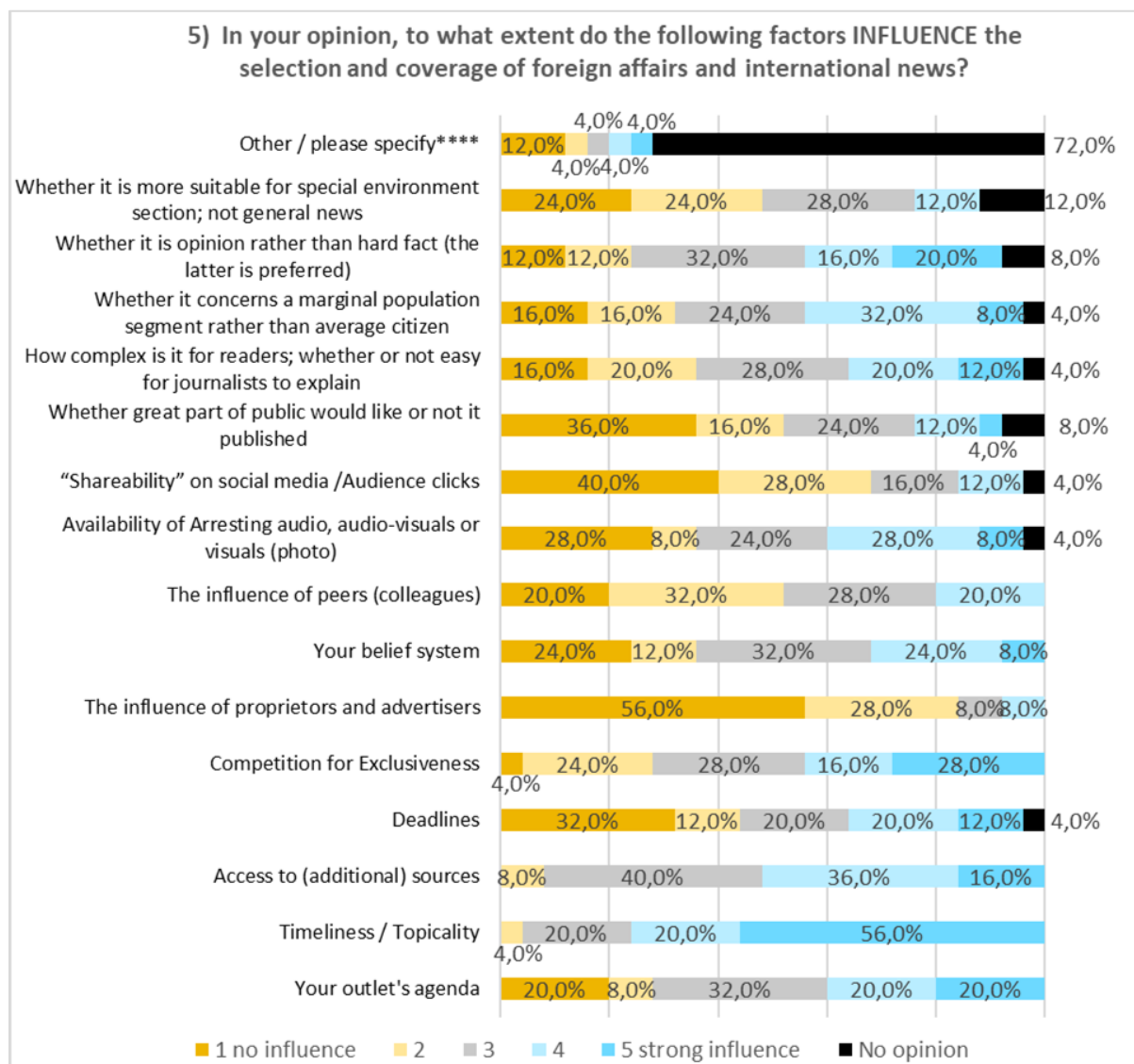
**‘Magnitude of an event’** is the second key indicator for selecting FA/IR. Almost two thirds of respondents considered it as the top indicator, while another quarter gave it 80 % relevance.

**‘Follow-up/ expectations’** indicator fared at the third place. Two thirds of respondents considered it among top 80 % and higher. Yet about 20 % of respondents tended to disagree here (2), and 10 % put this indicator just in the middle. This also begs for further search what is behind those more sceptical answers.

Categories of surprise/unusualness, drama, and powerful nations or power elites received about the same level of suggested importance in selection process in foreign affairs and international news - just over half of respondents indicating them among top 80 % indicators.

Unexpectedly, both **‘positivity’** and **‘negativity’** seem to be ambiguous news values. Majority of respondents in both cases (more in case of positive news) found these indicators, and at the same values, just as **‘neutral’** or as mentioned, ambiguous selection values for foreign affairs and international news coverage.

**Chart 12: Factors Influencing Selection and Coverage of Foreign News and International Affairs**



Out of the offered range of options, the most important factors that may influence the selection and coverage of international news and foreign affairs, **timeliness or topicality** stood out, with almost two thirds giving it the highest priority (5) and additional almost 16 % putting it on the second (4) place of importance. Significantly, no respondent considered it as having zero influence or very low (2) influence. Just about a fifth of respondents put it into middle category of importance. Timeliness or topicality is also factor that, exceptionally, no respondent considered unimportant (both 1 and 2). A lesson for policy makers is that if they want to influence events, at least from the perspective of getting their voice be heard, they must react swiftly.

The second most important factor that may influence the selection and coverage of IR/FA seems to be **competition for exclusiveness** that stands out, with almost a third of respondents putting in at the top (5), strong influence, and additional more than a fifth giving it second place (4). Another lesson for policy makers is that sometimes it may be worthy to offer exclusive but perhaps not necessarily highly attractive information to a selected news outlet, to get it published or disseminated through the media. This approach is supported by the next finding on importance of having access to sources.

**Access to sources in general or in additional sources in particular**, seems to be the third most important factor that may influence the selection and coverage of international news and foreign affairs. More than half of respondents pointed at this factor (a fifth for 5 – strong influence, and a third for 4). This is important finding that points to limitation of media coverage – some important as well as niche events and news do not get covered by the media due to missing sufficient quality and quantity of information. The importance of this factor can be seen that ‘Information access’ was ranked second (after journalism ethics, and with 86 % saying ‘extremely’ and ‘very influential’) in the Worlds of Journalism Study report for the Czech journalists (Němcová Tejkalová and Láb, 2016) as well as for the Latvian journalists (69.7 % saying ‘extremely’ and ‘very influential’). However, in contrast to the Czech journalists, the most influential factors for Latvian journalists were personal values and beliefs (71.8 %) (Ozolins, 2016). The personal values and beliefs ranked highest among the Hungarian journalists (77.4 %) too, while ‘Information access’ ranked third (68.9 %), right after journalism ethics (71.6 %). (Róka, Frost & Hanitzsch, 2017).

There indeed may be country-specific variations that may prevent establishing sound and universal theory here, or at least consensus on factors that influence selection and coverage of FN and international affairs. As put by Anastasiou (2022, slide 4), his findings suggest journalism cultures differences. For example, the British journalists were interested in stories that could be 'sold' to readers, the Swedish journalists were interested to discuss stories that they believed the public wants to see/read, and the Greek journalists focused on stories informing people about the impact news can have on their lives (Anastasiou, 2022, slide 12).

Conversely, shareability on social media or audience clicks do not seem to play important role, as declared by about two thirds of respondents. This finding is in contrast with the above mentioned Harcup & O'Neill (2016) study. Even more importantly, about 86% respondents declared low to zero influence of proprietors or advertisers on their decision to pick and publish some foreign news story. Apparently, media owners and advertisers are, if at all, more concerned with local politics.

As far as types of sources used, in three conflicts of international interest carried out by social movements (Egypt 2011, Ukraine 2013 and Venezuela 2017), Elena (2018) found that three of the main global news television channels (Al-Jazeera English, BBC and CNN), covered these conflicts, with social media used the least as sources cited, while official sources were the most cited in the three conflicts by the three broadcasters.

Other factors seemed to be rather balanced to allow sound analytical conclusions.

Yet it should be mentioned that among other factors suggested by some respondents one could find ‘ability to follow up story or an event’ (actually included into original questionnaire but in another set of questions), complexity of information, access to additional sources of information (actually included into original questionnaire but in another set of questions) and ‘factor of topicality’ (actually included into original questionnaire but in another set of questions).

Moreover, more focusing on the objectives of this research, we attempted to identify Usefulness/Essentiality of sources/methods/channels used in FA/IR coverage, Reliability of Sources/Methods in FA/IR coverage and Frequency of Use of Sources/Methods/Channels in FA/IR coverage.

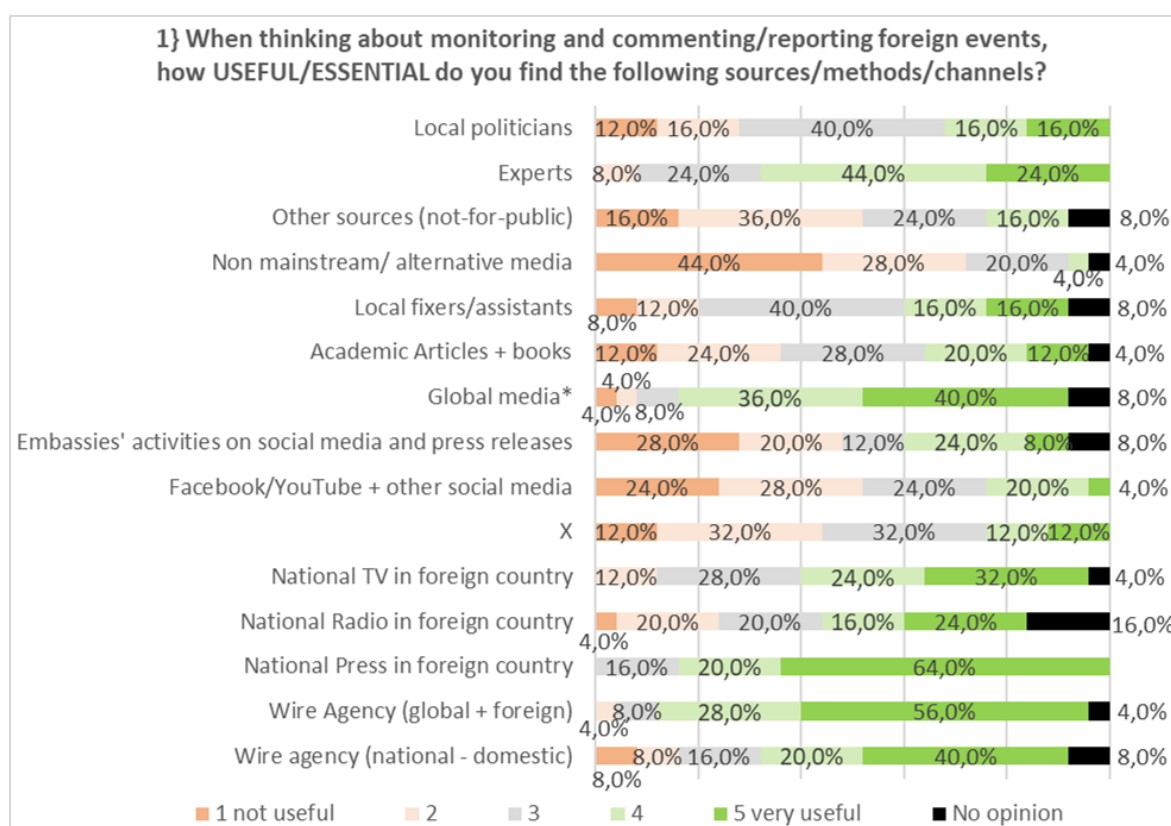
The most useful sources when monitoring/reporting and then commenting foreign affairs are ‘traditional wire agencies’ (both global and foreign) as well as ‘national press in a foreign country’, with two thirds respondents highlighting this option as ‘very useful’ (5), and additional fifth and about quarter respectively, identifying these sources as ‘useful’ (4). The rest of respondents found these resources as ‘average’ or put them into the middle from the



perspective of usefulness. Significantly, none has seen than as ‘not useful at all’ (1) or ‘not much useful’ (2). This finding confirms earlier mentioned arguments by Rantanen and Kelly, 2020, Surm, 2020, Grüblbauer and Wagemann, 2024, and others.

As the fourth and fifth most useful source was identified ‘global media’ and with not much distance ‘experts’. More than a third of respondents found global media either as ‘very useful’ (5) or ‘useful’ (4), while 10 % had no opinion and another 10 % found them ‘useless’ or ‘almost useless’ in foreign affairs monitoring and reporting/commenting. Further specifying what kind of global media respondents use, it was mentioned that these included BBC (11 times), CNN (six times), NYT (six times), The Guardian (four times), WSJ (three times), Al Jazeera (twice), Washington Post (twice), FAZ, Haaretz, RT, The Financial Times, The Telegraph, The Economist, Bild, Die Welt, Le Monde, ZDF, ARD, Süddeutsche Zeitung (twice), The Times, Washington Post, DW, The Economist, Radio Free Europe and wire agencies AP (four times), Reuters (twice), AFP. NOS (a Dutch media company) and South China Morning Post, were mentioned, too.

**Chart 13: Usefulness/Essentiality of sources/methods/channels**



Some respondents said they use various global media, including wire agencies. For example, one respondent claimed “Several dozens, the list is too long to specify.”

Apparently, the BBC is the essential source to follow. Although this is not really representative but rather indicative sample, it is conspicuous that only one Chinese, but no Indian or Brazilian sources were mentioned in our sample. Among bigger players, one would expect here e.g. Spanish newspapers. However, as explained by a respondent who listed some of above-mentioned global media: “Yet I do not quote or follow these media very often in my job, really only exceptionally I use them, if there is any connection to Czechia where I report from”. In other words, foreign reports may simply follow local media first and turn to global media only if they reporting is somehow related to country they follow.



Anyway, it would be interesting to learn how did respondents become users of cited global media. For example, ‘Neu Zürcher Zeitung’ – not mentioned by anyone - can cover global affairs from position of a neutral country. Moreover, although one respondent mentioned ‘Le Monde’, there is ‘Le Monde diplomatique’, too. As of 2023, ‘Le Monde diplomatique’ has 34 international editions in 25 languages: 24 in print (18 of which also have digital editions) and 10 digital-only editions.<sup>44</sup>

Experts were found as ‘very useful’ (5) only by 20 % respondents, while additional almost half found them ‘useful’ (4).

‘Local wire agency’ was found overall ‘very useful’ or ‘useful’ as a source of information (almost two thirds altogether). However, some respondents (about 15 percent) found it as ‘not useful at all’ (1) or ‘not much useful’ (2), and another 15 percent found it ‘moderately useful’ (3) as a source of information on foreign affairs.

Similar results as for the national wire agency were identified for national TV in a foreign country. In contrast, but as expected, radio broadcast was found less important, but still quite relevant in providing information on foreign affairs. With hindsight, one should specify further national broadcast in a foreign country, and international broadcast.

If we look at another spectrum, ie the least useful sources in foreign affairs coverage, one can identify here first of all alternative or not-mainstream media. About 80 % of respondents perceived them as ‘not useful’ at all or ‘not very useful’ (1 + 2), while only 20 % put them into the middle category, thus suggesting that these non-standard media can sometimes provide some useful tips.

It was more surprising to find out that embassies activities on social media fared quite poorly, too. About a half of respondents found them not useful at all or ‘not much useful’ (1 + 2), while only about third of respondents found them ‘very useful’ and ‘useful’ (4 + 5). There is a clear room for improvements.

It is worth mention that social media, including X, were identified as ‘very useful’ and ‘useful’ only by a quarter of respondents. However, there was a clear difference in highlighting higher importance of X within social media sample.

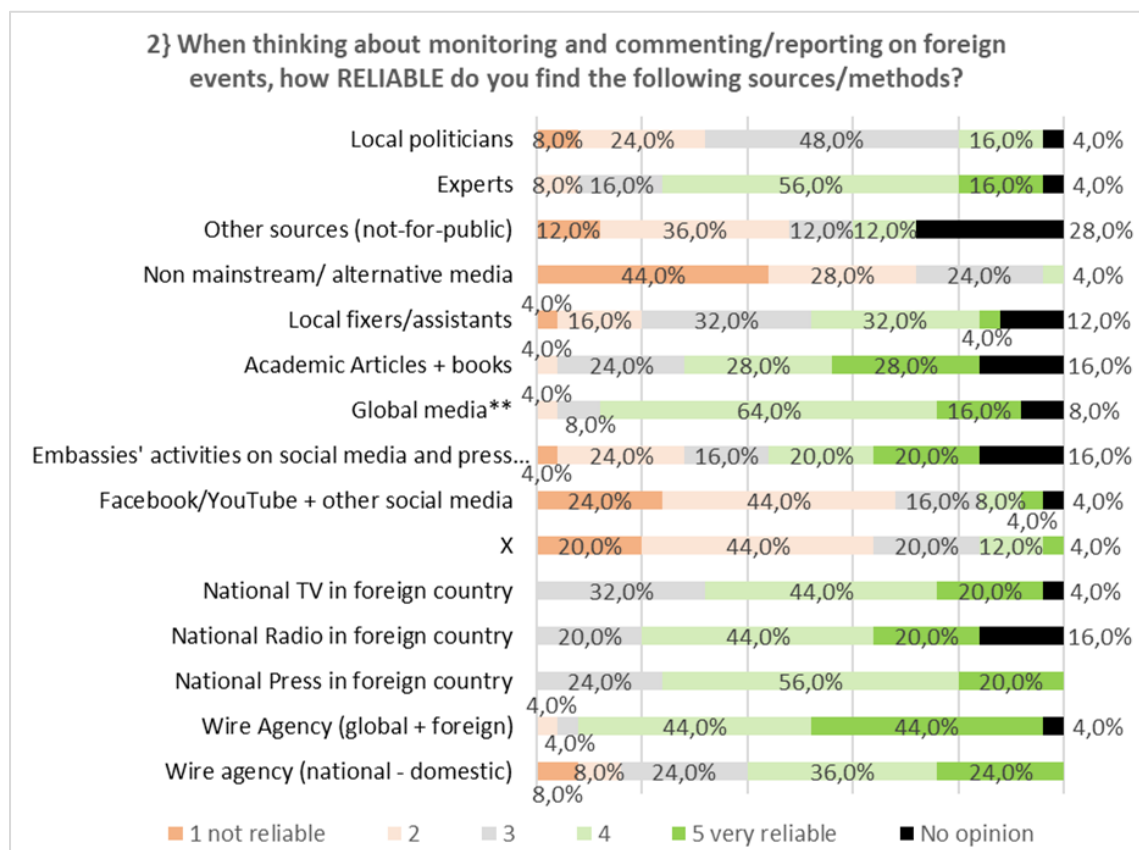
The rest of sources provided mixed results to draw reasonably specific insights.<sup>45</sup>

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<sup>44</sup> <https://mondediplo.com/foreign-editions>

<sup>45</sup> As put by Anastasiou (personal communication, 2025), “*Chart 13 shows interesting results. It shows an over-reliance on non-original information (that's not produced first-hand by the reporter/correspondent), as wire agencies and foreign press are the main sources. This makes foreign desks vulnerable by having to depend on potentially biased reporting of others. Even worse, foreign policy editors do not seem to mitigate that vulnerability by regularly also consulting non-mainstream/alternative media, which could help them acquire a more balanced picture and a more critical perspective.*”

**Chart 14: Reliability of Sources/Methods in FA/IR coverage**



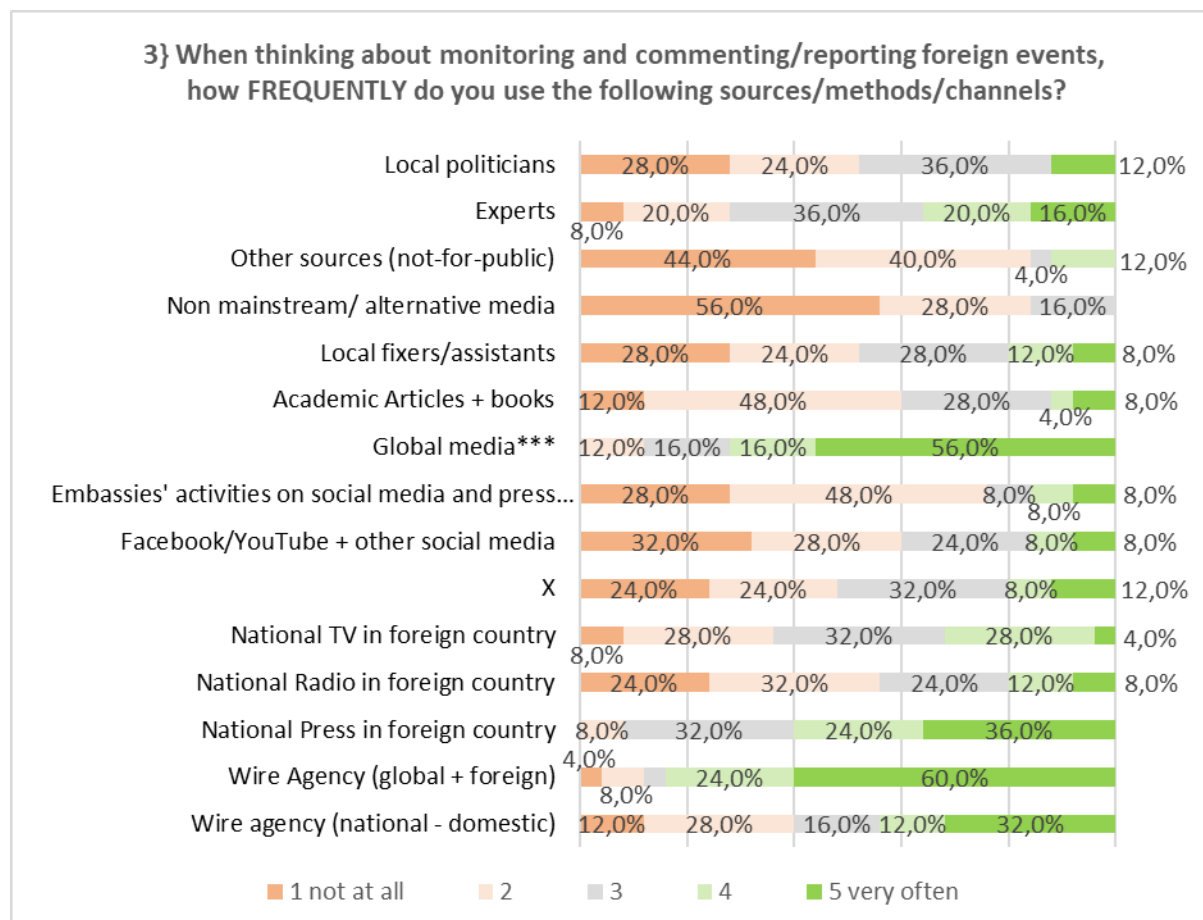
With hindsight, perhaps it would be more useful to learn how reliable does a respondent find those media he or she finds most useful/essential in his or her work. As explained, the answer to this question much depends on country or region foreign correspondent covers. We can assume that respondents expressed their position on media they follow, and which they mostly specified in previous question. Keeping this in mind, it is still revealing that global and foreign wire agencies as well as in general ‘global media’ reached the top reliability. Almost half of respondent believe that global and foreign wire agencies are ‘very reliable’ (5) and another more than a third considers them as ‘rather reliable’ (4). It is striking to compare these results with data for local/national wire agencies, that fared much worse – less than two thirds of respondents consider them ‘very reliable’ (5) and ‘reliable’ (4).

For ‘global media’, the results are almost identical as for global and foreign wire agencies, just with a bit lower absolute reliability. Then follow national tv and national press in a foreign country. Overall level of reliability is not much different from global media or global and foreign wire agencies results, yet top level of reliability is again a bit lower.

Experts reached level of almost two thirds reliability, yet the top level of reliability (5) was reached by 10 % of them only. Even more diverse results were reached for academic articles and books. Only about 50 % of respondents classified them as either ‘very reliable’ (5) or ‘reliable’ (4). More worryingly, about 30 % of respondents found them unsatisfactory (1 + 2 combined). This puzzle deserves further study.

We found here more negative assessment for local wire agency in the country that faces too much influence of the government on the media – namely Hungary. In Hungary, local wire agency was also found as not frequently or at all used (1+2).

**Chart 15: Frequency of Use of Sources/Methods/Channels in FA/IR coverage**



Frequency of use can be a good indirect indicator of usefulness and reliability. However, as explained earlier, the answer on this question also much depends whether respondent is a foreign reporter covering specific country or region for longer period, or just covering occasionally when something is happening, or whether he or she is just regular commentator on foreign affairs, or occasional commentator on foreign affairs, or executive editor. Therefore, in the future, these factors should be considered when drafting a questionnaire.

However, in general, frequency of use of information sources can be useful indicator of journalist's overall level of curiosity. Be that as it may, we see that actually both global media and global and foreign wire agencies are leading in attracting attention of fellow journalists. Yet, these are followed 'very often' by only a half of journalists in our sample.

Similarly, national press in a foreign country as well as domestic national agencies are followed with the same attention but at lower frequencies – about by a third of respondents declaring this as 'very often'.

The last source worthy to mention as followed more often is X with about 15 % declaring that they follow it 'very often'.

Conversely, non-mainstream/alternative media are clearly out of the regular focus of respondents. Very unfrequently are followed embassies on social media or they press releases, too. Academic articles and books are also not among frequently consulted sources. The same can be said about national radio and national tv in a foreign country.

In summary, all these findings and discussion can be useful in developing proper methodologies for media monitoring. It appears that global wire agencies are the most

important and, implicitly, most trusted source here. However, they cover only a fraction of events at regional or local levels. It is questionable how much they focus on foreign policies debates in smaller countries.

We also learned that journalists face many acknowledged and unacknowledged challenges in their selection and further news elaboration. There are some indications that perhaps some new news selection indicators such as shareability on social media do not play important role in FA/IR.

## 4. MEDIA OUTPUTS MONITORING METHODS, TOOLS & SOURCES

As we have already mentioned in the introduction, there exist many projects, publications, private companies, some NGOs or research organisations that utilise the keyword ‘media monitoring’ in their activities. However, under this umbrella term, they sometimes also cover different topics and use the variety of methodological approaches.

There exist media monitoring projects that focus on the roles of local or national media from the perspective of democracy, utilising various analytical perspectives and insights. We can point out the Media for Democracy Monitor (MDM) that aims to provide theory-led comparative research on leading news media focusing on production and distribution structures, as well as ownership and governance (Tomaz, & Trappel, 2022).<sup>46</sup> The Freedom House<sup>47</sup>, the International Research and Exchange Board (IREX)<sup>48</sup> and Reporters without Borders<sup>49</sup>, observe and analyse (sometimes in addition to other issues or topics) the media in democracies in transition and report violations of journalists’ rights.

There are also projects like the liberal FAIR (Fairness & Accuracy in Reporting)<sup>50</sup> and the conservative Accuracy in Media<sup>51</sup> in the USA. There is the Media Lens in the UK. In Australia, there is the television programme Media Watch<sup>52</sup> In Germany, there is the Bild Blog, monitoring the tabloid Bild Zeitung.<sup>53</sup> We already mentioned Ad Fontes Media project focused on media bias.

Following projects and organisations are exclusively or prevalingly focused on journalism outputs quality. The Worlds of Journalism Study (WJS) covers changes in journalistic practices in more than a hundred countries over the years. The Media Pluralism Monitor (MPM) is concerned with media and democracy from the perspective of media pluralism. The Global Media Monitoring Project (GMMP), in spite its global scope, measures gender representation in the media news. It was implemented in 116 countries and covered 30,172 stories published in newspapers, broadcast on radio and television, and disseminated on news websites and via news media tweets.<sup>54</sup> Finally, there is the Reuters Institute for the Study of Journalism with annually published Digital News Report.<sup>55</sup>

Recent decade witnessed surge in *ad hoc* studies and initiatives focused at fake news and hoaxes, in support of fact-checking and investigations into disinformation,<sup>56</sup> usually involved in media (including social media) monitoring.

There are many *ad hoc* local projects mentioning media monitoring although their mission is sometimes different from what their names suggest. For example, Slovak Media Monitor, a non-profit watchdog funded by public, aims “*to raise awareness of the rhetoric, actions and especially the policies of Slovak representatives directed against the principles of the rule of law, the media and civil society abroad*”.<sup>57</sup>

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<sup>46</sup> <https://euromediagroup.org/mdm/>

<sup>47</sup> <https://freedomhouse.org/>

<sup>48</sup> <https://www.irex.org/>

<sup>49</sup> <https://rsf.org/en>

<sup>50</sup> <https://fair.org/>

<sup>51</sup> <https://aim.org/>

<sup>52</sup> <https://www.abc.net.au/mediawatch>

<sup>53</sup> <https://bildblog.de/>

<sup>54</sup> <https://waccglobal.org/our-work/global-media-monitoring-project-gmmp/>

<sup>55</sup> <https://reutersinstitute.politics.ox.ac.uk/our-research>

<sup>56</sup> See e.g. <https://gulbenkian.pt/emifund/projects-and-evaluators/>

<sup>57</sup> <https://donio.sk/slovak-media-monitor#obsah>, <https://slovakmonitor.com/>

One can identify *ad hoc* specific projects, such as e.g. Lauk, Alons, Harro-Loit (2024) that focused on the capability of European countries to collect relevant data, carry out research and analysis and finally attempted to assess the risks and opportunities associated with media development in terms of the societies' potential for deliberative communication.

The tentative taxonomy of media monitoring projects can be illustrated in the following Table 7: Media Monitoring Projects

**Table 7: Media Monitoring Projects**

| Monitoring                                                                            | Examples of Analytical Focus                                     | Analytical Level       | Examples                                                     | Typical Methodology                                |
|---------------------------------------------------------------------------------------|------------------------------------------------------------------|------------------------|--------------------------------------------------------------|----------------------------------------------------|
| <b>Media Structures</b>                                                               | Distribution, ownership, finance, governance                     | Macro, sometimes micro | MDM, MPM                                                     | Mixture of qualitative and quantitative parameters |
| <b>Quality of Media Outputs from Perspective of Democracy</b>                         | Biases, fairness in reporting fake news hoaxes                   | Macro - mezzo - micro  | FAIR Ad Fontes Media Nordernstreng and Griffin (1999)        | Interviews, analysis, Computer assisted            |
| <b>Journalistic Practices and Environments</b>                                        | Peer influences, labour conditions, Gender representation        | Macro - mezzo - micro  | WJS, GMMP                                                    | Interviews, observations, quantitative             |
| <b>Threats to Journalism/ Media from Perspective of Democracy</b>                     | attacks and threats to journalists/media, changes in legislation | Macro - mezzo - micro  | RSF, Freedom House                                           | Interviews, news reports, questionnaires           |
| <b>Monitoring democracy with the help of the media</b>                                | Political actors and structures                                  | Macro - mezzo - micro  | Slovak Media Monitor                                         | Analytical commentary                              |
| <b>The capability of European countries to collect relevant data on media</b>         | Researchers, research institutions                               | Micro – mezzo macro    | Mediadelcom                                                  | ‘Holistic analysis - Fs/QCA)’                      |
| <b>Large-Scale Media Content Monitoring Projects as a Source for Further Analysis</b> | Actors - oriented data<br>Episode-oriented data                  | Macro - Micro - mezzo  | Dozens ad hoc projects more than a hundred private companies | Sentiment analysis, frequency of mentions          |

Although we can theoretically create three basic analytical categories – methods, tools, and sources, in practice, these analytical categories are usually mixed or overlapping. Thus, media monitoring tools use more or less the same resources (almost always social media, sometimes print media, rarely broadcast media), while methods used are only rarely different (currently, typical common analytical feature is sentiment analysis). Although software developments are in some cases rather rapidly progressing, especially with the use of machine learning and AI, nonetheless, there is little transparency around them, as we will show later on.

Moreover, there are possibly as many as 100 tools (and maybe more) developed locally and with many of them spread globally, that are used for media monitoring (as stated, mostly focused on social media monitoring). Their summative overview is not available. We cover in our overview about a third of estimated (conservative estimate) total number of monitoring tools. The sifting of monitoring tools was based on selection of those assessed most positively

in major specialised ranking online public portals, then we used cross-references. Additional search found that some of media monitoring tools that claim to be among the best available on the market are not found (or have only transient mention) in globally available online public rankings (e.g. Mediaboard). The priority was given to selecting and analysing monitoring tools focused on standard media. Their further analysis was done in a different depth. This was the result of availability of data or willingness of these companies and other entities to reveal details about their tools or projects.

Although country of origin was not of our primary interest, it appears that for example Chinese monitoring companies are missing into this sample. Considering shocking advances of China in AI as documented by recent release of DeepSeek R-1 or DeepSeek V3<sup>58</sup>, this is a surprising finding. One can assume that China, or Chinese software companies, have developed many advanced media monitoring tools.<sup>59</sup> In contrast, the sample includes Russian and Ukrainian monitoring companies whose monitoring tools at the same time both seem to be highly valued by their users. Moreover, Russia and Ukraine is of our analytical interest in the next phase of our research.

It was not always possible to rely on often exaggerated claims about advantages of media monitoring tools (concerning both methodologies and sources) produced by their creators. In addition, we have already extensively discussed methodological issue regarding sources of information used in monitoring, in the previous chapter (news values and news selections principles). Therefore, as briefly mentioned in the Methodology Section, in the final analysis we relied on arguably the most reliable and most comprehensive approach to the assessment to modern media monitoring tools. We used primarily negative or critical reviews of real users on six online ranking sites. These online ranking sites included G2, Trust Pilot, Capterra, OMR Reviews, Trustradius and Slashdot. Obviously, not all media monitoring tools could be identified at all ranking sites. Moreover, the number of rankings fluctuated significantly within a specific ranking site, or among ranking sites. Some past real users' reviews could be not longer be seen as relevant due to possible progress in software developments in the meantime. Nonetheless, considering all pros and cons of this approach, and comparing it with available analytical options, we think that this was the best available methodology for assessment of almost a score media monitoring tools.

We prefer to start here with historical or chronological approach – first discussing issues surrounding general and historical usage of events data sources (as these were called traditionally, while currently terminology used is e.g. ‘large-scale datasets’, or, alternatively, and with slightly different meaning, ‘big data’ - for discussion on big data see e.g. Al-Sai, Husin, Syed-Mohamad, Abdin, Damer, Abualiga & Gandomi, 2022).<sup>60</sup> For overview of text mining in big data analytics, see e.g. Hassani, Beneki, Unger, Mazinani & Yeganegi (2020).

After a brief discussion about challenges associated with researching events data sources, we follow with the Overview of Current and Past Data Sets. This is overview of current and

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<sup>58</sup> <https://www.deepseek.com/>

<sup>59</sup> With the help of one of reviewers, we were provided a link to an article in Mandarin that mentions social media monitoring tools – <https://zhuanlan.zhihu.com/p/698438308>. However, these tools seem to represent global brands: 01. <https://www.semrush.com/social-media/>, 02. <https://www.brandwatch.com/>, 03. <https://www.rivaliq.com/>, 04. <https://mention.com/en/>, 05. <https://keyhole.co/>, 06. <https://www.agorapulse.com/>, 07. <https://buzzsumo.com/>, 08. <https://www.meltwater.com/en>, 09. <https://www.sendible.com/>, 10. <https://www.sprinklr.com/>, 11. <https://www.hootsuite.com/>

<sup>60</sup> They cite a definition BD is defined as “a term that describes large volumes of high velocity, complex and variable data that requires advanced techniques and technologies to enable the capture, storage, distribution, management, and analysis of the information”.

past attempts at monitoring of media outputs for scientific purpose, mostly within academic projects. There is at least one project initiated and funded by defense industry. Yet, there was certainly a hope that most of these projects would have some foreign policy relevant impact. One can include here for example the Europe Media Monitor (EMM) that is in operation since 2004, and was funded by the European Commission. This is actually a special case discussed separately. It should be pointed that this project apparently failed to make progress – there was little advance in its analytical capabilities since 2004, although needed upgrades had been identified early on. Strangely, no official communication and explanation from the authorities or persons (EU-paid civil servants) behind this project could be received.

Another project that initially claimed to be highly successful (or, at least, very promising) was a Swiss FAST project. In fact, it appears to be one of projects that ultimately failed. However, as mentioned earlier, precise information about its final destiny is not available – public and private subjects behind it do not provide any additional information in e-mail communication.

Next, we discuss projects and tools that emerged as a result of the technological and software progress in the last about two or three decades. These are about 100 (maybe more) mostly of private sector media monitoring tools. We identified a few of them (in addition to EMM) as (initially) funded by the European Commission. For example, SUMMA (Scalable Understanding of Multilingual Media) entered into communication with us. Yet this was most relevant project from our research perspective. However, the results of this communication (and project outcomes, too) were mutually contradictory, slow and unfinished, as we discuss later on.

Chronologically, it appears that we can draw a blurred line between two key periods of approaches to utilising monitoring of media outputs. The first period can be seen as spanning roughly a half of century, with majority of these ambitious, mostly academic projects (almost always with state funding or external funding in general) closing after a few years, or, at best, after a decade. There was usually missing explanation why these projects failed. Some of these projects used code books for coding news items by humans, others attempted at utilising more automated or semi-automated approaches, and cheaper approaches to this, from human or financial resources perspectives demanding task. Nonetheless, relatively rare independent quality assessments of validity and reliability of their outputs usually showed serious quality issues.

Some projects are still running, sometimes run by students, or are re-opened under different legal entity. In some cases, there is a vague promise of more progress to be made soon, including opening these tools to professional public.

We prioritised for deeper analysis GDELT project among more scientific tools (or at least tools used more frequently by scientists). GDELT's (still relatively limited) use "*can at least partially be attributed to several pitfalls common to many large-scale datasets*" (Hopp, Fisher and Weber, 2019, n.p.), as we discuss later on.

Among private companies' media monitoring tools, we prioritised, after exploring situation in the field, Semantrum, Critical Mention, YouScan and Mention. There are some other, possibly qualitatively (using novel and increasingly advanced methodologies, including ML and AI) and quantitatively (covering large number and wide scope of sources used) equally relevant media monitoring tools. However, in some cases, they approach to presenting the strengths of their media monitoring tools was somehow less ambitious. In other cases, it was impossible to identify them (e.g. as mentioned, Chinese media monitoring tools).



Nonetheless, in the final analysis, a lesson of this pilot study and following recommendation of this part of this study is that there is only one way how to assess what media monitoring tools can achieve in any field. The solution is to provide their creators or managers with an identical specific task and then to compare the results. To come to such finding, however, first requires to produce an overview as this one.

Still chronologically speaking, new technological and software developments in the last 25 years created fertile conditions for eruption of private companies that offer their media monitoring services to private and public sector. As mentioned, their number can include a hundred, but possibly even more entities. We selected for general overview 35 of them. Then, a narrow selection of them was subject of more detailed analysis. Finally, questionable qualitative aspects, raised by real users, for three media monitoring tools (Critical Mention, Semantrum and Mention), were confronted directly with their producers who were willing to answer criticism raised by real users about their tools. YouScan provided detailed answers to our questions. However, in general, companies behind these tools are not much willing to talk about details or to produce requested specific demo related to FP.

Let us explore the tools and related projects that have attempted to find answer or solution to this – as we have tentatively discussed earlier - rather complex issue

#### **4.1. Challenges of Analysing Media Outputs Monitoring Methods, Tools & Sources**

In addition to what we have discussed in earlier parts of this study, there are two fundamental reasons for using large-scale data sets supported by machine learning, or most recently, AI, in political and communication analysis.<sup>61</sup> First, neither political science nor communication science have the convenient reliable numerical measures, indicators or variables as it is in natural sciences. Political activity, especially in FP, consists largely of discrete actions and not always transparent communications directed from one actor to another, or to more actors, over time. Sometimes this communication is indirect, and blurred. Second, human analysts have a limited ability to absorb and analyse vast quantities of largely redundant material (Schrodt and Gerner, 2012, 22). Within this context, FP can be seen as reflected in relevant foreign or international events and foreign or international communication in general. It appears that only relatively recent technological developments enabled in some areas relatively relevant monitoring of ongoing events and discussions. However, it also seems that most, if not all, of these monitoring focus at sentiment analysis and similar outputs, and moreover, prioritising monitoring on social media, as will be discussed later on.

Be that as it may, event data (currently utilising big data or large-scale data) are a formal method of measuring the phenomena that, in our case, can contribute to foreign policy perceptions. Event data (or, for our purpose, FP data) can be generated by examining thousands of newspaper, television and radio reports on the day-to-day interactions of nation-states or other international players, and assigning each reported interaction a numerical score or a categorical code (Schrodt, 1993,2). As put by Schrodt (1993, 22):

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<sup>61</sup> Artificial intelligence (AI) vs. machine learning (ML), <https://cloud.google.com/learn/artificial-intelligence-vs-machine-learning>

*The event data approach demonstrates that it is possible to systematically code a very large number of individual foreign policy interactions and then use that information to test general hypotheses about foreign policy behavior using statistical techniques. These hypotheses may deal with national-level characteristics (Hermann and Hermann 1989); the effectiveness of specific strategies (Schrodt 1983, Leng 1993); patterns of interaction within a subsystem (Schrodt and Mintz 1988, Goldstein and Freeman 1990, van Wyk and Radloff 1993); or patterns in a type of behavior such as a crisis (Sherman and Neack 1993).*

In general, the collection mandates, coding rules, and sourcing methods can result in drastically different information, for example, on political violence and interpretations of conflict (Raleigh and Kish, 2019). Similarly, the data availability can guide categorisation and overshadow a more balanced assessment. As a result, identical indicators can have a different meaning in different political contexts. Moreover, difference in concepts lying at the heart of data collection allows very different conclusions to be drawn from the same set of data (Matveeva, 2006, 43). Importantly,

*“In retrospect, the event data community underestimated the sheer volume of “events” that occur in the world. At 1000 stories per day, Reuters initially looked like a major improvement over the ever-diminishing international coverage of The New York Times. But a bit of reflection will show that even 1000 stories is only a tiny fraction of all of the political events that occur in the world on any given day. Any news source is going to nonrandomly sample only a small number of these events, so the question is whether that sample is useful for a specific analytical task.”* (Schrodt and Gerner, 2012, 15).

All events researchers involved in media monitoring outputs research have had to deal with some basic methodological issues, namely (1) events as units of analysis, (a) definitions, (b) source coverage, (c) measurement, (d) typology definition and coding, (e) context.

In the second step, these methodological issues include events aggregation and analysis: (a) linking action and interaction, (b) events profiles, (c) aggregation, (d) forecasting or projection, (e) inference making (Azar, 1980, 145).

Reuveny & Kang (1996) add that in the actual use of events data sets, out of above mentioned issues, several issues seem to be important: events data scaling and events data aggregation over time, and subsequent combination of the various data sets into one time series. Time series studies must rely on one or another method to convert event-by-event data into aggregate time series representing a country's behavior toward another country over time. This step has been a difficult one for users of events data, and continues to generate controversy (Goldstein, 1992). The use of scales, or weights, arises due to the relative importance of events, concluded Reuveny & Kang (1996, 284). However, these issues do not seem to be relevant in our analytical focus on FP. More relevant for farther discussion about FP is that Althaus, Peyton & Shalmon (2022) argue that conventional ways of assessing validity in event data using only published datasets (they point at six event extraction pipelines—ACLED, SCAD, ICEWS, GDELT, PETRARCH, and the SPEED project, almost all discussed further) offer little insight into potential sources of error or bias.

Indeed, Clarke (2023, 302, 308, cited by Parkinson, 2024) demonstrated that protest datasets built from local-language sources in the Middle East included considerably more events than more commonly used datasets, and that there was wide variation in the *differences* between Arabic-language sources and popular event datasets (e.g., ACLED, SCAD, and NAVCO) with respect to the events reported in five countries. As a solution to this issues, Lorenzini, Kriesi, Makarov & Wüest (2022) suggested to use a semi-automated approach to

code multiple sources and create large data sets that span many countries and years. In essence, their approach is based on a multistep procedure that combines automated pre-selection of relevant documents and manual coding. Moreover, they discuss potential biases associated with the study of protest events identified in international news sources.

Raleigh, Kishi & Linke (2023) examined four widely used public datasets with global coverage. First, they demonstrated differences in conflict definitions, and secondly, aspects of the information-sourcing processes they prioritized. Most importantly, they identified considerable disparities between automated conflict coding projects (with few inclusion barriers and no data oversight) and researcher-led projects. Fundamentally, the key issue is whether a dataset prioritizes and mandates internal reliability by imposing initial conflict definitions on present events, or whether a dataset's agenda is focused on capturing an externally valid and comprehensive assessment of present violence patterns. Raleigh, Kishi & Linke (2023) further argue that

*“... prioritizing **reliability**<sup>62</sup> privileges specific forms of violence, despite the possibility that other forms actually occur; and leads to reliance on international and English-language information sources. Privileging **validity**<sup>63</sup> requires a wide definition of political violence forms, and requires diverse, multi-lingual, and local sources. These conceptual, coding, and sourcing variations have significant implications for the use of these data in academic analysis and for practitioner responses to crisis and instability. These foundational differences mean that answers to “which country is most violent?”; “where are civilians most at risk?”; and “is the frequency of conflict increasing or decreasing?” vary according to datasets all purporting to capture the same phenomena of political violence.”*

Althaus, Peyton & Shalmon (2022) illustrated the benefits of validating event data using a total error approach (see Soumia *et al*, 2017, and Ljung, 2021) by showing how the gold standard approach used to validate project SPEED data offers a clear and robust method for detecting and evaluating the severity of temporal errors in event data. Although it is beyond ability of the author of this study to assess its reliability and validity, it seems that total error approach is rarely used, and possibly little known, among researchers involved in large data event research. We show an example of calculations used in this approach (Ljung, 2021, 3).

**Table 8: Validating event data using a total error approach**

$$\left[ \frac{1}{2\pi} \int_{-\pi}^{\pi} \left| \tilde{G}(e^{i\omega}) \right|^2 |L(e^{i\omega})|^2 |U_N(\omega)|^2 d\omega \right]^{1/2} \\ \leq \left[ \frac{1}{N} \xi_N^M \right]^{1/2} + x_N + 2C_u \sum_{k=M}^{\infty} |\rho_k|$$

Hammond & Weidmann (2014) claimed that some quality checks indicated that machine-coded events can match human-coded data with a high degree of accuracy regarding the substance of events and the actors involved (referencing to Best *et al*, 2013; Schrodtt and Gerner, 1994). However, as we discuss next, early media monitoring projects could not always use reliable approaches for machine-coded events.

<sup>62</sup> It refers to the degree of consistency in measurement and to the lack of error. There are several types of indices of reliability.

<sup>63</sup> It refers to how accurately a method measures what it is intended to measure.

There is additional issue of translating, in a monolingual setting, for the purpose of the classification of documents (i.e., texts) into classes of predefined categories to infer meaning from those documents for purpose of deductive types of automated content analysis. Most often there is used resource-intensive human coding to classify documents for the countries under study. Lind, Heidenreich, Kralj & Boomgaarden (2021) suggested that only document samples for each language are to be machine-translated. In the next phase, validated English-language dictionaries are to be applied to annotate the machine-translated samples, using supervised machine learning.

Importantly, there are few macro-level empirical assessments of the relationships between news framing and sociopolitical events (Hopp, Fisher and Weber, 2020). These relationships may be called ‘dynamic transactions between news and event occurrences’, as it may be called in software focused or supported research, or it may be called as ‘news framing’ in communication research. It can be argued that this research faces challenges, too. For example, Hopp, Fisher and Weber (2020, n.p.) concluded that *“While this approach<sup>64</sup> facilitates a systems-level understanding of these processes, it does not readily afford an understanding of the microscale social and psychological processes that influence individual evaluations and behaviors.”*<sup>65</sup> Again, as mentioned earlier, this objection may not be seen as a barrier to our research focus. We may not necessarily need to understand social and psychological processes behind decisions impacting FP.

Only very recently one can identify a study (Akcakir, Jiang, Luo & Noh, 2023) focused on multilingual news framing analysis, using computational approaches. The authors of this study initially argue that “ANTMN framing analysis is robust to variation in data sources and has the ability to produce generalizable results across multilingual corpora.” If this is true, then we have a path-breaking solution available. Yet, as they discuss in conclusion of their study, *“...under the single frame assignment rule, ANTMN does not perform well on articles that have multiple equally significant frames.”* Another caveat is that ANTMN does not remove researcher subjectivity entirely although it reduces the bias to the minimum compared to other frame detection approaches (Akcakir, Jiang, Luo & Noh, 2023, 30). Thus, a path for achieving relevant and reliable results in FP is still ahead of us.<sup>66</sup>

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<sup>64</sup> A massive-scale computational approach to examine the “statistical geometry” that captures the evolving relationships between news frames and events.

<sup>65</sup> Additional significant limitations included, for example: *“...herein utilized machine-coded event data should be complemented using large-scale, manually-verified event coding systems such as the Global Terrorism Database”* (LaFree & Dugan, 2007). *“Likewise, the herein employed bag-of-words, dictionary-based framing measures are constrained in their capacity to capture more nuanced, generic framing concepts such as “responsibility,” “economic consequences,” or “human interest””* (e.g., Semetko & Valkenburg, 2000). *“Although the utilized MFD is a popular tool for identifying moral keywords in text, the MFD remains limited in detecting more intuitive, latent aspects of moral framing that may not be captured via manually predetermined keywords....Furthermore, dictionary-based approaches generally fail to capture agent–patient relationships (e.g., who interacts with whom and in what manner), and are equally limited in assessing framing patterns that are expressed across sequences of paragraphs.”* (Graham et al., 2009)

<sup>66</sup> As put by Anastasiou (personal communication, 2025), *“I’m thinking that the caveat of dealing with cases involving “multiple equally significant frames” could possibly be addressed by not including the entire stories in the data, but only the headline and first paragraph. While it may be argued that some potentially significant data will be missed, I believe that - for the purposes of framing analysis - this might not be so important, as it has been well established that - in the vast majority of, if not all, news stories - framing is determined as early as in the headline and first paragraph (or ‘lead’) (Pan and Kosicki, 1993). In that way, the most significant of the “multiple” frames would be considered, as I doubt that all frames within any single story can really carry “equal significance”. As about the second caveat (researcher’s subjectivity), I do not believe that it can ever be completely avoided; so, let’s just live with it and try to alleviate its effect by making research design as transparent as possible.”*

It should be noted that Baden, Pipal, Schoonvelde & van der Velden (2021) identified three gaps that limit the utility and obstruct the progress of computational text analysis methods for social science research. First, their development has prioritized technological over validity concerns, giving limited attention to the operationalization of social scientific measurements. Second, they identified a mismatch between computational text analysis methods for social science focus on extracting specific contents and document-level patterns, and social science researchers' need for measuring multiple, often complex contents in the text. Third, they argue that the dominance of English language tools depresses comparative research and inclusivity toward scholarly communities examining languages other than English.

Indeed, for the first issue, researchers apply a great variety of validation steps, which, however, are rarely selected based on a unified understanding of validity (Birkenmaier, Lechner & Wagner, 2023).

All this methodological criticism can be confirmed or supported (in a sense, negatively) by the results of meta-review of 30 substantive and methods papers published in the journal *Computational Communication Research*. Chan, Schatto-Eckrodt, & Gruber (2024) found that they could at least partially reproduce the findings in only six papers published in that journal. This nicely (but negatively) illustrates and endorses challenges facing verifying validity and reliability of data sets, tools, methods, and projects examined within this project, too.

## 4.2. Overview of Current and Past Data Sets and Projects in IR

It is essential to explore focus, pros and cons of previous large-scale media monitoring projects in order to understand how we got to the present phase. Large-scale data sets traditionally fell into two general categories (Schrodt and Gerner, 2012, 9). Actor-oriented data sets recorded all interactions among a set of actors for a specific period of time. These include e.g. WEIS, COPDAB, CREON, PANDA data sets.

Episode-oriented data sets look only at the events involved in a specific historical incident, usually an international crisis or use of force (e.g. BCOW, CASCON, SHERFACS).

It is hard to find policy-oriented approaches to study of events – unless we consider e.g. terrorism and protests movement and actions as specific cases of enforcing particular policies in violent way, or as being at a threshold between actors and episodes events data. For the record, we note that there exist overview of over 100 databases and data sets in terrorism studies,<sup>67</sup> with the most recent update to be found in Bowie (2021). In addition, there are 20 databases on violent and armed conflicts (Singh, 2021).

As mentioned, there are no FP emerging media monitoring oriented projects identified, although some earlier mentioned recent studies aimed more or less in that research direction (Hopp, Fisher and Weber, 2020; Akcikir, Jiang, Luo & Noh, 2023). Nonetheless, most of early efforts in producing data sets and related analytical tool were motivated by attempts to develop early warning indicators of international and domestic instability based on data (Schrodt and Gerner, 2012, 8).

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<sup>67</sup> 'Terrorism Events Data: An Inventory of Databases and Data Sets, 1968–2017' [URL: <http://www.terrorismanalysts.com/pt/index.php/pot/article/view/622/1226>] and '30 Terrorism Databases and Data Sets: A New Inventory' [URL: <http://universiteitleiden.nl/binaries/content/assets/customsites/perspectives-on-terrorism/2018/issue-5/bowie.pdf>]

What can we learn from these early attempts? There are two major issues that question usefulness of early warning systems.<sup>68</sup> First, predictions have not been accurate in the past (or important events were not foreseen), and second, that operational responses have been inadequately linked to warnings (Matveeva, 2006, 7).

The follow up overview of actor-oriented data sets and episode-oriented sets is necessarily illustrative rather than definitive record and analysis of all current and past projects. In the next section, we discuss current and past projects and tools that deal with data sets utilising processing tools with analytical abilities and are covering specific topics at either regional or global levels.

#### **4.2.1. Current Scientific Large Data Sets Processing Tools with Analytical Abilities in IR**

Probably the most popular large scale-data set among IR scientists is the **Global Data on Events, Location, and Tone (GDELT) Project** which monitors news (broadcast, print, and digital) across the globe in more than 65 languages. The dataset includes news organized in more than 300 different categories of events, which took place since 1979. In contrast to the earlier generation of machine-coded event datasets, the GDELT Project makes the new generation of event data suitable for the micro-level, geo-spatial analysis of political events. GDELT captures details such as who is mentioned, what is discussed about and where events have happened. This includes quantitative data such as how many times an article is published and when. The GDELT project uses advanced machine learning (ML) techniques and text analysis of news articles to identify various items such as events, themes or topics, number of mentions, or tone (sentiment) of text. The taxonomy used within GDELT is primarily based on the Conflict and Mediation Event Observations (CAMEO) framework. This leads to quantitative based longitudinal analyses that, nonetheless, can show some trends and (hopefully) similar results as sentiment analysis on social media (e.g. Ravi and Kapoor, 2022). These are based on more than 24 emotional measurement packages (the largest deployment of sentiment analysis) to assess more than 2,300 emotions and themes.

However, it is non-transparent whether any specific quality assurance mechanisms are built into the GDELT data collection and processing process (Williams, 2020). Among events in the social world, probably only a fraction is covered by the GDELT, although the proportion can hardly be quantified (Jünger & Gärtner, 2021). Data quality is poor regarding precision and recall (Jünger & Gärtner, 2021). About half of the data is wrongly classified (Jünger & Gärtner, 2021). While the automated methods yield good decisions for single variables such as date, country, or content of an event, their combination includes the combination of their respective error rates. Even for a simple conception of events with only three criteria (date, country, and content), the probability of errors easily reaches problematic levels (Jünger & Gärtner, 2021). While the GDELT's Global Knowledge Graph (GKG) data selection process is theoretically clear (extracting all data within a set of categories from a news article), the process for the GDELT events database involves aggregation of individual news articles into events. This adds a further layer of unexplained complexity (Williams, 2020). GDELT should still be considered an experimental project.<sup>69</sup> Only one of the algorithms that extract and compile the data is described in detail, making it impossible to reconstruct the process of data extraction from individual news articles (Williams, 2020).

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<sup>68</sup> Defined as any initiative that focuses on systematic data collection, analysis and/ or formulation of recommendations, including risk assessment and information sharing, based on Berghof Handbook for Conflict Transformation.

<sup>69</sup> Interestingly, one of reviewers commented this claim as follows: "I strongly oppose to this statement. It is the largest such attempt in the globe. It is renowned in international politics analysis also."

Relatively few academic articles appear to use or discuss GDELT data and several of these publications are of low quality, reported Williams (2020). Nonetheless, as of 2024, for example SAGE database included more than 50 articles that used GDELT data. Still, the relatively limited use of GDELT in the academic literature might be related to the data source being relatively new, but more likely related to issues with data quality or difficulty to extract meaningful information (Williams, 2020).

Earlier comparative studies that compared GDELT and ICEWS Event Data suggested that

*“...most of the shortcomings of the GDELT data are well known and well established—even if they are ignored by many users and pushers alike. They are well known by the community that creates and uses these data, but largely overlooked by the community that uses creations based on these data...the uncertainty on events in ICEWS is less than GDELT, a judgement presaged by the goals of each collection, but validated in research as well. These data serve the modeling goals of the ICEWS research project, at present. That said, the availability of GDELT data is terrific, and we have little doubt that these data can be utilized for similar purposes.”* (Ward, Beger, Cutler, Dickenson, Dorff & Radford, 2013, 8-9).

Hopp, Fisher and Weber (2019) summarised following GDELT shortcomings:

- the sheer size, complex structure, and opaque documentation of these datasets pose significant challenges to communication researchers trying to query, parse, and explore GDELT;
- scripts and algorithms utilized to query and parse GDELT have to this point largely remained closed ‘black boxes’ solely available and interpretable to the user or research group that develops these tools;
- data processing pipelines are needed to shape GDELT’s datasets in a manner that meets the requirements of scholars.

However, there are several advantages over other datasets (specifically, Phoenix and ICEWS). GDELT enables users to download the automatically derived news article metadata. This allows for conducting independent analyses. GDELT’s Global Content Analysis Measures (GCAM) system provides the output of over 40 automatic content analytic measures. GDELT processes sources daily at 15-minute intervals. It provides access to both news and event metadata. Both ICEWS, and Phoenix rely on the same Conflict and Mediation Event Observations codebook (CAMEO) (Hopp, Fisher and Weber, 2019).

We shall come back to GDELT. Before that, let us explore other large-scale, or big data, or as they were called originally and more specifically, event data projects.

**ACLED (Armed Conflict Location & Event Data)** is an independent international non-profit organization collecting data on disaggregated incident information of violent conflict and and select related non-violent developments (protests) in all countries and territories in the world. Data can be used for trend monitoring, early warning, and risk analysis. ACLED data are updated weekly every Monday and Tuesday. The various data columns, such as the ‘Actor’, ‘Event type’, and ‘Disorder type’ columns, can be used to filter events by specific event types and actors. Events are disaggregated by date (when the event happened), type of violence (what happened), actors (who is involved), and location (where the event happened). Information about six types of events, both violent and non-violent, that constitute political disorder, is collected. These events include battles, explosions/remote violence, violence against civilians, protests, riots, strategic developments (e.g. recruitment drives, incidents of looting, and arrests). Within these broad event categories, ACLED codes 25 sub-event types

that classify different actions. ACLED researchers claim to collect and review the latest reports from selected local, national and international sources, including media, vetted social media accounts, government and NGO reports, and partner organizations. It lists two related scientific reports.<sup>70</sup>

At the end of January 2025, we have found 2,518 ACLED mentions in JSTOR database, 652 ACLED mentions in SAGE database, and 42 ACLED mentions in CEEOL database.

However, Eck (2012) pointed at ACLED's data uneven quality-control issues. Moreover, there were doubts raised in relation to both ACLED's and UCDP GED datasets' reliance on media sources.

**The Social, Political, and Economic Event Data Project (SPEED)**<sup>71</sup> claims that it is designed to provide insights into key behavioral patterns and relationships that are valid across countries and over time. Within SPEED Project (or, at least within the centre that works on it), there is the Archer application in beta phase with limited access.<sup>72</sup> It is a web application for accessing the Global News Index and Extracted Features Repository via API and user-interface systems.<sup>73</sup> The Archer system allegedly allows advanced users to conduct more complex queries at scale. The Archer follows on the Cline Center Global News Index. **The Global News Index** is a searchable database of textual features extracted from millions of news stories. It is specifically designed to provide comprehensive coverage of events around the world. In addition to searching documents for keywords, users can query metadata and features such as named entities extracted using Natural Language Processing (NLP) methods and variables that measure sentiment and emotional valence. Archer is a web application purpose-built by the Cline Center to enable researchers to access data from the Global News Index. Access to Archer and the Global News Index is limited to account-holders (Cline Center for Advanced Social Research, 2023).

It should be mentioned that research based on SPEED's event data on civil strife revealed that conventional machine-based approaches for generating event data miss a great deal of within-category variance, while conventional human-based efforts to categorize periods of civil war or political instability routinely misspecify periods of calm and unrest (Nardulli, Althaus & Hayes, 2015). Therefore, the authors argued for a collaborative, hybrid approach that combines comparative advantages of both approaches.

We gave up counting mentions of SPEED project in selected databases due to high level of error (false positives).

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<sup>70</sup> at <https://acleddata.com/article-categories/external-resources/>

<sup>71</sup> <https://clinecenter.illinois.edu/project/human-loop-event-data-projects/SPEED>

<sup>72</sup> However, they provide a contact for those who are interested in learning more about Archer or would like to request access to the system, at [cline-center@illinois.edu](mailto:cline-center@illinois.edu). We contacted them, and received following answer: "Bajjalieh, Joseph W <[jbajjal2@illinois.edu](mailto:jbajjal2@illinois.edu)> Date: Mon, Sep 16, 2024, 17:34 Subject: Archer Request To: [askolkay@gmail.com](mailto:askolkay@gmail.com) <[askolkay@gmail.com](mailto:askolkay@gmail.com)> Dear Prof. Skolkay, Thank you for your interest in Archer. Currently, we are working on finalizing the procedures to enable off-campus users to access our Archer system (<https://clinecenter.illinois.edu/project/data-science/archer>). We anticipate resolving these internal requirements soon. Once we are ready, we will reach out to you to provide access. In return, we kindly ask for your constructive feedback to help us improve the system for all users. I just added your info to our contact list when the needed steps on our end are completed. Best, **JOSEPH W BAJJALIEH Sr. Research Manager**, University of Illinois at Urbana-Champaign, College of Liberal Arts & , Cline Center for Advanced Social Research, 2001 S. First, Suite 207 | M/C 689 Champaign, IL 61820 217.300.1077 | [jbajjal2@illinois.edu](mailto:jbajjal2@illinois.edu) [www.clinecenter.illinois.edu](http://www.clinecenter.illinois.edu)

<sup>73</sup> <https://clinecenter.illinois.edu/project/data-science/global-news-index>



**The Integrated Crisis Early Warning System (ICEWS)** program claims to be a comprehensive, integrated, automated, generalizable, and validated system to monitor, assess, and forecast national, sub-national, and internal crises. Moreover, ICEWS supports decisions on how to allocate resources to mitigate crisis. ICEWS combines heterogeneous statistical and agent-based models in an integration framework with an aggregate forecast accuracy of more than 80 percent. These models are provisioned in near real-time from more than 100 data sources and 250 international and regional newsfeeds. The results are presented in an interactive, customizable web-based portal featuring time series, map-based and other views. Model forecasts are presented through a variety of visualizations supporting drilldown to foster trust in models through transparency.

The data repository contains over 45 million world-wide stories in English, Spanish, Portuguese and Arabic, spanning from January 1991. These unclassified stories are processed through deep and shallow-parsing technologies to produce a set of over 25 million unique geolocated events with an accuracy of greater than 80 percent. This event data consists of date-stamped and geolocated event triples that recount who did-what to whom.

There are over 300 different types of coded events drawn from the Conflict and Mediation Event Observations taxonomy, with each event type having an observer-neutral intensity score that represents how hostile or how cooperative the event is. The actors (country, sector, organization, individual) involved in events come from dictionaries of over 50,000 named and time-indexed entities as well as over 700 generic agents (e.g. police, government official).

Data set provides the underlying data that is leveraged by the iTRACE (trending) and iCAST (forecasting) components of the ICEWS system.

Lorenzini, Kriesi, Makarov, & Wüest (2022) found that the ICEWS data contained events that would have been classified into other action form categories by human coders (e.g., violent demonstrations) or not considered as protest event at all (e.g., police violence). They argued that it was also very likely that the ICEWS data contains many duplicates of events. Finally, the discrepancies between the two types of data varied a lot from one country to the other.

Moreover, selection procedure used by Lorenzini, Kriesi, Makarov, & Wüest (2022) was also not able to exclusively identify relevant documents, as it turned out that roughly a fourth of the documents selected did not contain any events. In addition, roughly a third of the documents contained only duplicates of events. In general, the authors acknowledged that they *“uncovered some of the factors responsible for the discrepancies, but in the final analysis we are unable to tell which type of data is better able to reproduce the “real” dynamics.”* (Lorenzini, Kriesi, Makarov, & Wüest, 2022).

At the end of January 2025, we have found 2,518 ICEWS mentions in JSTOR database, 47 ICEWS mentions in SAGE database, and 42 ICEWS mentions in CEEOL database.

The **UTD Event Data** project relies on recent advances in AI and large language models (LLM) to address problem with costly human coding. It expands previous project ConflibERT to multilingual settings, including Arabic and Spanish. It also focuses on creating network data for individuals, groups, locations, and events. There are about 50 related papers and presentations identified at their website, with most recent ones from 2024<sup>74</sup>. Relevant GitHub repositories are listed, too.<sup>75</sup> We did not count mentions in selected databases due to high level of error (false positives).

**The Global Consensus Toolkit** (UN Voting Coincidence Dashboard) is a visual analytics platform developed to provide small and developing United Nations (UN) member states with

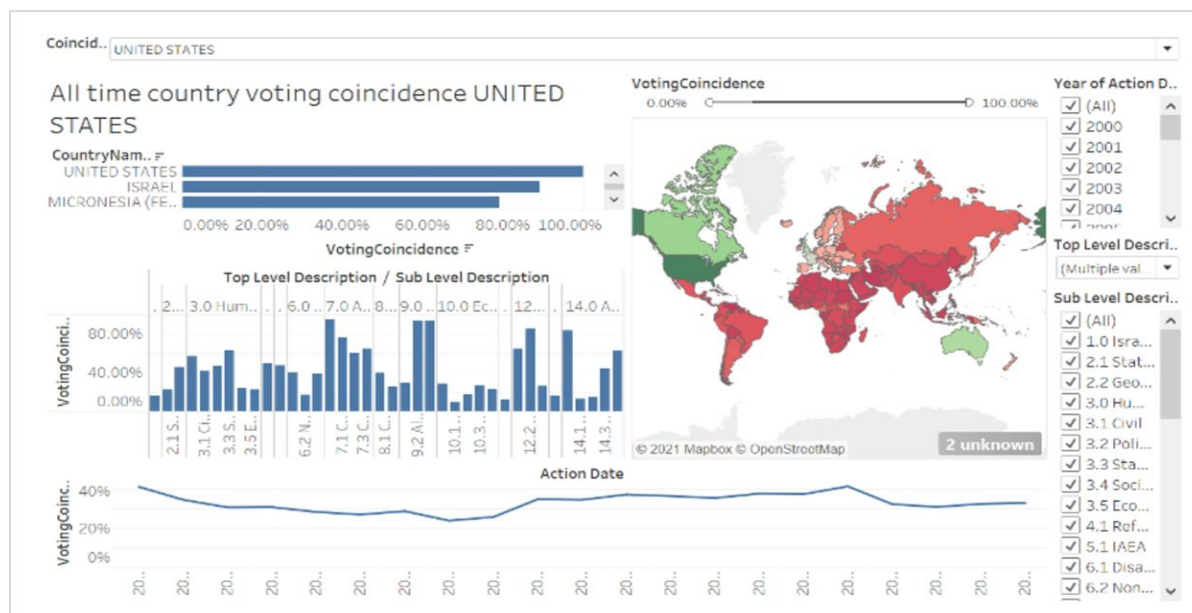
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<sup>74</sup> <https://eventdata.utdallas.edu/researchpapers/>,

<sup>75</sup> <https://eventdata.utdallas.edu/contact/>.

information to make data-based decisions in negotiations at the UN and bilateral meetings. It allows users to explore 20 years of UN member voting via interactive dashboards. The Toolkit is a curated database of UN member state voting records supported by extensive metadata. Users can analyze the voting coincidence—how often the votes of specific stakeholders coincide—among member states and regional and economic voting blocs or based on specific issues or topics such as climate, human rights, foreign direct investment or sanctions. Individual dashboards focus on Voting Coincidence, Voting Coincidence by Resolution (Agenda), Country Cluster, Voting Coincidence by Group and Voting Coalition UN General Assembly.

**Chart 16: Example / Scan of The Global Consensus Toolkit**



Source: <https://cps.northeastern.edu/academics/global-consensus-toolkit/>

At the end of January 2025, we have found zero mentions of the Global Consensus Toolkit/the UN Voting Coincidence Dashboard in JSTOR database, three mentions of the Global Consensus Toolkit/ UN Voting Coincidence Dashboard in SAGE database (probably all false positives), and no mention of the Global Consensus Toolkit/ the UN Voting Coincidence Dashboard\_mentions in CEEOL database.

**The Media Cloud** project (2011- closed in 2020, and opened again as a consortium collaboration between three partners) was developed to answer questions about the influence of citizen bloggers on digital news. The tool expanded to include global news media from nearly every country in the world (over 60,000 media sources). Media Cloud Search is a content retrieval and analysis tool for studying media ecosystems. Using parameters of keywords, dates, and media collections, Search returns matching content and provides essential analysis information such as volume count over time, top keywords used in the content, and the top entities mentioned in the content. Media Cloud supports searching individual media sources, or across media sources grouped into collections. It covers media sources in over 100 countries, with number expanding. It allows search by language, including various levels of support for English, Spanish, Arabic, Japanese, and other languages. However, no reference to this project was found in selected databases.

We included here also internationally available media source list is **All You Can Read**<sup>76</sup>. This website claims to maintain a repository of sources with substantial audiences domestically and/or internationally. It is allegedly the largest database of magazines and newspapers on the Internet, with listings for about 25,000 magazines, newspapers and top news sites from all over the world. It supposed to be a complete guide to world media sources. Over 200 countries are represented at AllYouCanRead.com. However, random checking shows that it is rather random compilation of sources.

**Table 9: A Brief Comparison of Current Large Data Sets Processing Tools with Analytical Abilities**

| <b>GDEL Project</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Strengths</b>    | <ul style="list-style-type: none"> <li>• Longitudinal trends</li> <li>• Timeliness (updated every 15 minutes)</li> <li>• Coverage across the globe</li> <li>• Coverage of small-scale events</li> <li>• Connected with Google BigQuery (<a href="https://cloud.google.com/">https://cloud.google.com/</a>)</li> <li>• GDEL has proven useful for advancing research on agenda-setting (Guo &amp; Vargo, 2017; Vargo &amp; Guo, 2017) and fake-news (Guo &amp; Vargo, 2018; Vargo, Guo, &amp; Amazeen, 2018), all cited in Hopp, Schaffer, Fisher &amp; Weber (2019)</li> <li>• Its Global Content Analysis Measures (GCAM) system provides the output of over 40 automatic content analytic measures (Hopp, Schaffer, Fisher &amp; Weber, 2019).</li> <li>• It provides access to both news and event metadata (Hopp, Schaffer, Fisher &amp; Weber, 2019).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Limitations</b>  | <ul style="list-style-type: none"> <li>• Based on media reporting</li> <li>• GDEL's algorithms are not transparent so it is not certain how well they work at categorising information in articles (Williams, 2020).</li> <li>• It is uncertain how complete a coverage of media outlets is monitored (Williams, 2020).</li> <li>• GDEL struggles with ambiguous location names, and gets some location name classifications wrong across several articles (Williams, 2020).</li> <li>• Country codes cannot be relied upon, so full country names need to be used (Williams, 2020).</li> <li>• GDEL should be used with caution for geospatial analyses at the subnational level (Hammond &amp; Weidmann, 2014).</li> <li>• Copyright prevents GDEL from providing access to full article texts (Malik, Hopp, Chen &amp; Weber, 2021)</li> <li>• The operationalization of concepts is limited to indicators contained in the database (Jünger &amp; Gärtner, 2021).</li> <li>• Although the data are already available, automated methods are still time-consuming (Jünger &amp; Gärtner, 2021).</li> <li>• The accuracy of its non-English coverage potentially subject to some error due to machine translation (Brannen, Haig &amp; Schmidt, 2020)</li> </ul> |

<sup>76</sup> <https://www.allyoucanread.com>

|                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                          | <ul style="list-style-type: none"> <li>• North America and Europe are likely overrepresented, with areas with less English-language media coverage likely underrepresented (Brannen, Haig &amp; Schmidt, 2020)</li> <li>• It is reliant on the input of media coverage, so in countries with less media output or where media is highly controlled, coverage is likely to be reduced (Brannen, Haig &amp; Schmidt, 2020).</li> <li>• It relies on machine learning and an automated coding system, which creates its own coding accuracy problems (Brannen, Haig &amp; Schmidt, 2020).</li> <li>• The automated coder still has a hard time to differentiate between Brussels as a capital the Belgium and as the capital of Europe (De Spiegeleire, Akimov &amp; Shantz, 2015).</li> </ul> |
| <b>Potential for FPM/FPA</b>                                             | <ul style="list-style-type: none"> <li>• Information about small-scale events that might only be reported in local news outlets (Williams, 2020).</li> <li>• Could potentially provide estimates of the scale of an event of interest, or add information in combination with other data sources (Williams, 2020).</li> <li>• It might be helpful to develop an approach to dimensionality reduction when using GDELT's themes for filtering out irrelevant articles. This could significantly decrease the noise in article selections (Williams, 2020).</li> <li>• Combining data with X data (Williams, 2020).</li> </ul>                                                                                                                                                                |
| <b>The Armed Conflict Location and Event Dataset (ACLED)</b>             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Strengths</b>                                                         | <ul style="list-style-type: none"> <li>• Data are updated weekly.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Limitations</b>                                                       | <ul style="list-style-type: none"> <li>• There are uneven quality-control issues which can result in biased findings if left unchecked by the researcher (Eck, 2012).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Potential for FPM/FPA</b>                                             | <ul style="list-style-type: none"> <li>• Data can be used for trend monitoring, early warning, and risk analysis in closely related field. Contact: admin@acleddata.com</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>The Social, Political and Economic Event Database Project (SPEED)</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Strengths</b>                                                         | <ul style="list-style-type: none"> <li>• It is designed to provide insights into key behavioral patterns and relationships that are valid across countries and over time.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Limitations</b>                                                       | <ul style="list-style-type: none"> <li>• Apparently, they are working on finalizing the procedures to enable off-campus users to access their Archer system.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Potential for FPM/FPA</b>                                             | <ul style="list-style-type: none"> <li>• Open question.<br/>Contact: cline-center@illinois.edu</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>ICEWS (Integrated Crisis Early Warning System)</b>                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Strengths</b>                                                         | <ul style="list-style-type: none"> <li>• It supports decisions on how to allocate resources to mitigate crisis.</li> <li>• It claims to have an aggregate forecast accuracy of more than 80 percent.</li> <li>• Sentiment analysis from open source media.</li> <li>• Near real-time newsfeed ingest and coding, trend visualization and analysis.</li> <li>• Extracting the 'who, did-what, to-whom, when, and where' in near real-time from a variety of international, regional, national and local news sources (over 6000).</li> </ul>                                                                                                                                                                                                                                                 |
| <b>Limitations</b>                                                       | <ul style="list-style-type: none"> <li>• Private defense industry company involved behind this project.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

|                                                                                                                         |                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Potential for FPM/FPA</b>                                                                                            | <ul style="list-style-type: none"> <li>This project seems to be on threshold between academic approach and private business utilisation and developments as discussed in another part of this report.</li> </ul> <p>Contact: <a href="mailto:icews@atl.lmco.com">icews@atl.lmco.com</a></p>                           |
| <b>UTD Event Data (the Open Event Data Alliance's Phoenix database)</b><br>(Cline Center Historical Phoenix Event Data) |                                                                                                                                                                                                                                                                                                                       |
| <b>Strengths</b>                                                                                                        | <ul style="list-style-type: none"> <li>It relies on recent advances in AI and large language models (LLM) to address problem with costly human coding</li> </ul>                                                                                                                                                      |
| <b>Limitations</b>                                                                                                      | <ul style="list-style-type: none"> <li>Unclear follow up progress</li> </ul>                                                                                                                                                                                                                                          |
| <b>Potential for FPM/FPA</b>                                                                                            | <ul style="list-style-type: none"> <li>This project seems to be worthy to follow as it develops further.</li> </ul> <p>Contacts: <a href="mailto:pbrandt@utdallas.edu">pbrandt@utdallas.edu</a> (Patrick T. Brandt)<br/> <a href="mailto:vito.dorazio@mail.wvu.edu">vito.dorazio@mail.wvu.edu</a> (Vito D Orazio)</p> |
| <b>The Global Consensus Toolkit (UN Voting Coincidence Dashboard)</b>                                                   |                                                                                                                                                                                                                                                                                                                       |
| <b>Strengths</b>                                                                                                        | <ul style="list-style-type: none"> <li>20 years of UN member voting via interactive dashboard</li> </ul>                                                                                                                                                                                                              |
| <b>Limitations</b>                                                                                                      | <ul style="list-style-type: none"> <li>Run by students</li> </ul>                                                                                                                                                                                                                                                     |
| <b>Potential for FPM/FPA</b>                                                                                            | <ul style="list-style-type: none"> <li>Individual dashboards focus on Voting Coincidence, Voting Coincidence by Resolution (Agenda), Country Cluster, Voting Coincidence by Group and Voting Coalition UN General Assembly.</li> </ul>                                                                                |
| <b>MediaCloud (<a href="https://mediacloud.org/">https://mediacloud.org/</a>)</b>                                       |                                                                                                                                                                                                                                                                                                                       |
| <b>Strengths</b>                                                                                                        | <ul style="list-style-type: none"> <li>over 60,000 media sources</li> </ul>                                                                                                                                                                                                                                           |
| <b>Limitations</b>                                                                                                      | <ul style="list-style-type: none"> <li>It provides the output of a few available analyses without granting access to the underlying news data (Hopp, Schaffer, Fisher &amp; Weber, 2019).</li> </ul>                                                                                                                  |
| <b>Potential for FPM/FPA</b>                                                                                            | <ul style="list-style-type: none"> <li>Not much different from similar sources.</li> </ul>                                                                                                                                                                                                                            |
| <b>(Special case)<br/>All You Can Read</b>                                                                              |                                                                                                                                                                                                                                                                                                                       |
| <b>Strengths</b>                                                                                                        | <ul style="list-style-type: none"> <li>Allegedly the largest database of magazines and newspapers on the Internet</li> </ul>                                                                                                                                                                                          |
| <b>Limitations</b>                                                                                                      | <ul style="list-style-type: none"> <li>Random checking shows that it is rather random compilation of sources.</li> </ul>                                                                                                                                                                                              |
| <b>Potential for FPM/FPA</b>                                                                                            | <ul style="list-style-type: none"> <li>First rough introduction to a media environment.</li> </ul> <p>Contact: <a href="mailto:allyoucanread@amixima.com">allyoucanread@amixima.com</a></p>                                                                                                                           |

Of all above discussed projects, only a few seem to be promising. This list includes UTD Event Data (the Open Event Data Alliance's Phoenix database), the Global Consensus Toolkit (students who are behind shared a large file), and the Social, Political and Economic Event Database Project (SPEED) (allegedly, it is in its final development stage).

Much used the GDELT Project seems to be overrated, or used uncritically. There is some progress here, though. Hopp, Schaffer, Fisher & Weber (2019) developed an interface for Communication Research (iCoRe), a web interface that provides fast access to the data available in GDELT, shapes and processes GDELT for theory-driven applications within communication research, and enables replicability through transparent query and analysis protocols.

#### 4.2.2. Past Large Data Sets Processing Tools with Analytical Abilities

**COPDAB** was an extensive, computer-based longitudinal collection of daily international and domestic events. COPDAB held about a half million events (e.g., agreements, visits, clashes, boycotts, mobilizations, wars) reported in over 70 sources about 135 nation-states between 1948 and 1978. The COPDAB time series covered three general periods. The early Cold War (1948-1962, characterized by uniformly negative IR, though these were more stable in the late 1950's than in the early 1950's. A partial 'thaw' occurred in 1962-1970 following the Cuban Missile Crisis, with the IR being neutral. Finally, the 1970-1978 period shows the rise and fall of the détente policy (Schrodt, 1993,3).

Each event record contained variables describing the actions, reactions, and interactions of nation-states. These events were occurrences between nations which are distinct enough from the constant flow of 'transactions' (trade, mail flow, travel) to stand out against this background as 'reportable', or 'newsworthy.' Thus, to qualify as an 'event,' an occurrence has to be actually reported in some reputable and available public source. For example, the conclusion of a trade agreement would qualify as an 'event,' but the subsequent individual and routine trade exchanges conducted under its terms would not (Azar, 1980).

Howell (1983, 149) compared the COPDAB and WEIS datasets. He concluded that:

*"Whether the comparison of the COPDAB and WEIS versions of US-Soviet interaction is in the form of graphs, correlations of pairs, hypothesis tests on principles of interaction, or correlations of tension ratios, the two data sets seldom match up well. Overall, the choice of one data set rather than the other is likely to introduce variation in outcomes relating to theoretical principles and policy plan."*

Interestingly, Reuveny & Kang (1996) claimed that COPDAB data and WEIS data since 1966 were the two events data sets that *"are most widely used"* in the mid 1990s. Reuveny & Kang (1996, 285) somehow routed off Howell's criticism. Yet there was additional critique, based on research, reported by Vincent (1983), namely *"the global levels of conflict and cooperation expressed by COPDAB and WEIS did not seem to match"*, as cited by Reuveny & Kang (1996, 285). Moreover, Reuveny & Kang (1996, 286) cited McClelland (1983) who reviewed the results of Howell (1983) and Vincent (1983) and argued that *"WEIS is not fundamentally suitable for analysis of conflict or cooperation."*

**The World Event/Interaction Survey (WEIS Project)** dataset is a past record of the flow of action and response between countries (as well as non-governmental actors) reflected in public events reported daily in the New York Times from January 1966 through December 1978. The unit of analysis in the dataset was the event/interaction, referring to words and deeds communicated between nations, such as threats of military force. Each event/interaction was a daily report of an international event. There are almost 100,000 events included in this dataset. Coded for each event were the actor, target, date, action category, and arena. It included public events with two or more countries and/or international organizations reported in The New York Times from 1966 through 1978. It covered 243 nations, international organizations, and nongovernmental agencies (Reuveny, & Kang, 1996, 282). There are provided brief textual descriptions for each event (McClelland, 2006). There are 63 related publications (listed on affiliate website), the last one as of 2019.

**CASCON**, the Computer-Aided System for the Analysis of Local Conflicts system (CASCON) coded the characteristics of 66 internal and international conflicts during the post-World War II period. The analytical framework was organized around six predefined conflict phases ranging from the issues leading to the initiation of the dispute to the resolution of the dispute. CASCON coded 540 'factors' for each crisis; some of these described specific types

of events, others described contextual characteristics of the crisis such as whether the parties to the conflict are dependent on outside aid. The CASCON III system contains the conflict data set, a variety of analytical tools that can be used to compare conflicts and a subsystem for entering new cases into the database (Schrodt, 1993, 13).<sup>77</sup>

**The KEDS** project coded events into WEIS's categories. However, KEDS was automatically coded by a computer program that reads news texts and sorted them into WEIS categories, whereas WEIS was manually coded by a trained coder. Moreover, WEIS was based on the New York Times, while KEDS was based on Reuters' News Service wire story leads, available as online data from NEXIS data service starting in 1979. Between 1982 and 1992 it included daily interactions of seven actors: six Middle Eastern actors (Egypt, Jordan, Syria, Israel, Lebanon, and the Palestinians) and the United States. Schrodt and Gerner (1994, cited by Reuveny & Kang, 1996) reported that when they compared the KEDS data machine-coded (monthly aggregated) events set with manually coded (also monthly aggregated) WEIS events over the same time periods and for the same actors, and reported that for half of the dyads tested, the correlation between the two series for the number of reported conflict events and for the net cooperation events were statistically significant. The correlations were computed for each year in their sample period from 1982 to 1989. The correlation coefficients ranged from 0.59 in 1983 to 0.96 in 1988 when dyads were used, and they ranged from 0.77 in 1983 to 0.99 in 1988 when actors were used instead. The differences between WEIS and KEDS were attributed by Schrodt and Gerner (1994) to the different density of events reported by the New York Times and the Reuters news agency.

**The Program for the Analysis of Nonviolent Direct Action (PANDA)** was a project with focus on nonviolent sanctions. The PANDA data set used KEDS computer programs to code Reuters' News Service wire leads into WEIS-like categories. These categories were augmented by additional codes and verbal descriptions as needed by the particular focus of the PANDA project. The PANDA project has released a global data set covering the years from 1984 to 1994.

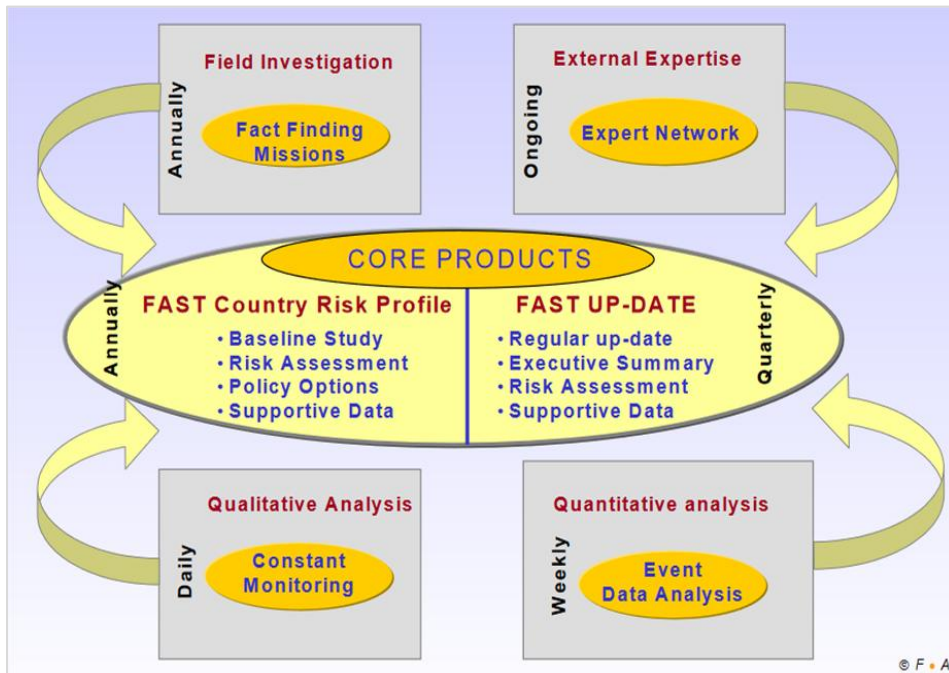
**FAST International**, the early warning programme of Switzerland, aimed at early recognition of impending or potential crisis situations in order to act early and prevent violent conflict. More specifically, FAST aimed at enhancing political decision makers' ability to identify critical developments in a timely manner so that coherent political strategies can be formulated to either prevent or limit destructive effects of violent conflicts or identify windows of opportunity for peacebuilding. It focused at Southern Africa, Central Asia, and Southern Asia, concentrating on the areas neglected by international attention. FAST combines qualitative and quantitative methodologies (Krummenacher and Schmeidl, 2001, for early conceptual ideas see Kohlschutter and Bachler, 1997). All events that are considered relevant were assigned a certain numeric value according to a distinct conflict scale. These values are then displayed in a graph for specific combinations of indicators and for specific periods of time. Events were coded by Country Coordinators following the IDEA (Integrated Data for Event Analysis), a standardised coding scheme, a method originally developed by Virtual Research Associates (VRA), a company based in Boston, USA. FAST established Local Information Networks (LINs) responsible for tracking and reporting relevant information in accordance with a specific set of questions or properties related to the political salience of a conflictual or cooperative event. Each LIN consisted of one Country Coordinator and two to six Field Monitors. Data analysis was supplemented by collaboration with in-house desk officers with regional expertise and internationally renowned country experts (Matveeva, 2006, 13).

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<sup>77</sup> Check for more here: <https://www.icpsr.umich.edu/web/ICPSR/studies/5301/publications>

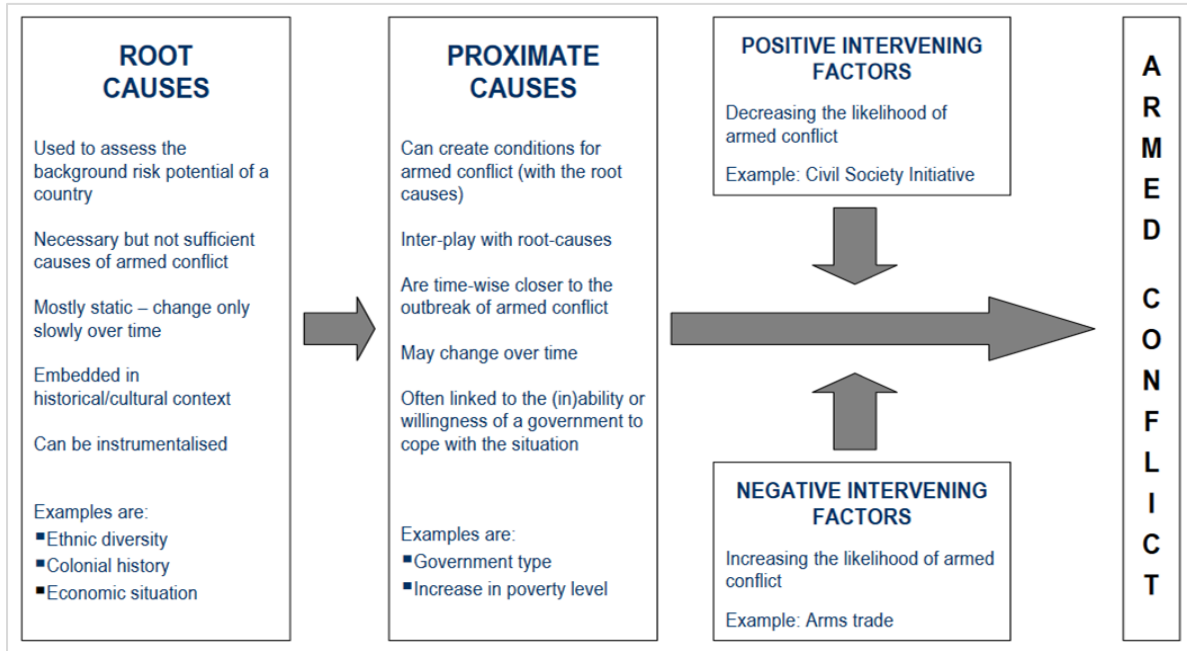


**Chart 17: The FAST-framework**



Source: Krummenacher and Schmeidl (2001,7)

**Chart 18: The FAST Analytical Framework**



Source: Krummenacher and Schmeidl (2001, 9)

Unfortunately, the evaluation report was not publicly available on the Adelphi company website, that evaluated this project in 2006, and no response was received from this company



in spite of two emails sent.<sup>78</sup> As already mentioned, neither the Swiss Agency for Development and Cooperation provided any explanation with regard to success or failure of FAST project.

**The SHERFACS** data set coded over 700 international disputes and almost 1000 domestic disputes in the 1945-1984 period. It combined several different coding schemes, including COPDAB event codes, the CASCON crisis phase structure, and a variety of conflict management variables. SHERFACS was particularly strong on coding nonstate actors such as ethnic groups, transnational actors such as intergovernmental organizations, and non-national actors such as multinational corporations (Schrodt, 1993, 13).

**Behavioral Correlates of War (BCOW)** coded a sample of 38 major international crises over the period 1816-1975; about half of these crises culminated in war and the other half were resolved without war. BCOW's event codes were an expanded version of the WEIS scheme containing about 100 categories and differentiated more clearly between verbal, economic and military behavior. BCOW project emphasized the need to distinguish between verbal and actual activity of bilateral state interactions. Events recorded in BCOW contained relatively detailed information and include quotes from news sources. However, BCOW contained a much smaller set of cases, especially in comparison to the number of cases included in COPDAB and WEIS (Reuveny & Kang, 1996). It used multiple sources of information, including newspaper accounts, diplomatic histories, and chronologies. The number of events in each crisis range from 120 events in the 1889-90 British-Portugal crisis in southern Africa to 2352 events in the 1956 Suez crisis (Schrodt, 1993, 12).

**The Comparative Research on the Events of Nations data set (CREON)** was designed for the study of foreign policy interactions. It coded over 150 variables dealing with the context of the event, related actions, and internal decision-making processes. Actions variables were divided into verbal and nonverbal actions and both are further divided into conflictual and cooperative actions. Behavior variables are divided into verbal and nonverbal behaviors and include those for unilateral policy exchange, border, protocol, penetrative, military, comment, bargaining, world organization, regional organization, treaty, propaganda and culture, foreign assistance, and economic transaction behaviors (Hermann, 1992). It covered a random sample of time periods during 1959-68 and a stratified sample of 36 nation-states that contained a disproportionate number of developed and English-speaking countries (Schrodt and Gerner, 2012, 10). 16 outputs can be identified.<sup>79</sup>

**The Formal Bilateral Influence Capacity (FBIC) Index** tracked relational power in the international system from 1960-2020 for all pairs of states. This index is operationalized using data that cut across economic, political, and security dimensions of bilateral influence. It is based on assumption that understanding bilateral and network interactions based on patterns of complex interdependence is the key to analyzing state power (Moyer *et al*, 2021). FBIC is comprised of elements described as bandwidth and dependence. The FBIC Index is the product of two sub-indices, one measuring the 'bandwidth' across a relationship and another measuring the 'dependence' of one state on another. The measure includes data representing economic-, political-, and security-related variables. Bandwidth measures the volume of interactions between countries, such as the amount of economic activity that flows across borders in a given year. All bandwidth values are the same for the 'sender' and 'receiver' in a dyad. Dependence measures how reliant one country is on another for their economic activity or security services by measuring levels of trade as a share of total trade or as a share of GDP.

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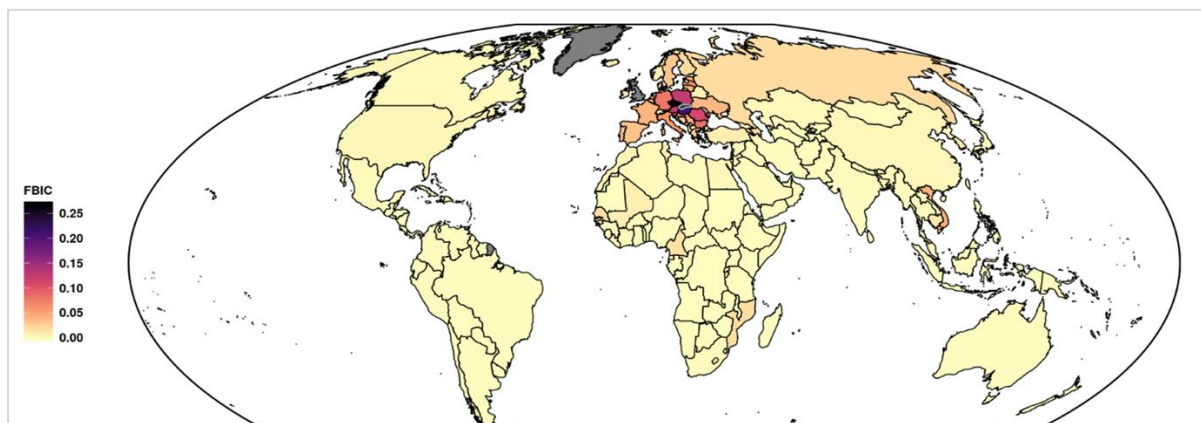
<sup>78</sup> office@adelphi.de, December 16, 2024, January 6, 2025].

<sup>79</sup> <https://www.icpsr.umich.edu/web/ICPSR/studies/5205/publications>

Dependence values differ within a dyad, where values depend on which is the ‘sending’ country and which is the ‘receiving’ country.

We have chosen Slovakia to document the results. Clearly, Slovakia has only limited influence capacity – most pronounced towards Czech Republic and Hungary.

**Chart 19: FBIC Index - Example Slovakia**



Source: <https://korbel.du.edu/fbic>

**The Event Data on Armed Conflict and Security Project (EDACS)** attempted to utilize the speed of machine coding with direct human oversight. It compiled and analyzed spatially and temporally disaggregated data on the use of violence in the context of civil wars in Sub-Saharan-Africa, starting with the end of the cold war until 2009. The basic unit of analysis was an event, defined as a violent incident with at least one fatality resulting from the direct use of armed force. EDACS contains detailed information on violent events in six countries of Sub-Saharan Africa (Somalia, Democratic Republic Congo, Republic of the Congo, Burundi, Sierra Leone, and Liberia). There are up to 20 related scientific articles identified, mostly in German.<sup>80</sup>

**Global Networked Media Archive (GNMA)**, it is also called the Texas A&M system) consists of six separate feeds from three different languages—Arabic, Chinese, and Spanish. It created and stored a 24 hour a day, searchable archive of broadcasts. It could study global media broadcasts in realtime, and is accessible at [mms.tamu.edu](http://mms.tamu.edu). Although the GNMA system archives material for one year, a historical archive of broadcast feeds has been created for content recorded from December 19, 2010 to December 19, 2011. These archives contain the broadcasts from all of the channels capturing several momentous world events, including the breakout of popular protest movements in the Arab world (the Arab Spring), and the March 2011 Sendai earthquake and tsunami in Japan. This special archive is accessible to historically important media content, such as Al Jazeera’s coverage of the Arab Spring events.

**The Global Event Data System (GEDS)** events data set used the Reuters news agency and other news sources to code events. The GEDS project was oriented toward generating a record of daily event reports, rather than a record of ‘real’ events as such. GEDS has been established to allow computer-assisted identification, narrative description and analytical coding of daily international and intranational events (describing the day-to-day actions of all states and the major non-state communities and international organizations), as reported

<sup>80</sup> <https://www.conflict-data.org/publications/COLOW/index.html>

primarily in on-line news sources, including international sources (Davies and McDaniel, 1994, Davies 1998).

**The Social Conflict Analysis Database (SCAD)** includes protests, riots, strikes, inter-communal conflict, government violence against civilians, and other forms of social conflict not systematically tracked in other conflict datasets. SCAD includes information social conflicts from 1990-2017, covering all of Africa and now also Mexico, Central America, and the Caribbean. The database includes all countries with a population of more than 1 million. Organizational Properties (SCAD-Ops) provides identifying information on actors and targets listed in SCAD. It is available for Egypt, South Africa, Nigeria, Kenya, Haiti, the Dominican Republic and Mexico. SCAD includes protests, riots, strikes, inter-communal conflict, government violence against civilians, and other forms of social conflict not systematically tracked in other conflict datasets. SCAD includes information on nearly 20,000 social conflict events from 1990 to 2015. Each event record contains information on the location, timing, and magnitude of social conflict events, as well as the actors, targets, issues of contention, and government response. While other data sources contain rich information about *armed* conflict in Africa, the goal of the SCAD project was to provide researchers, journalists, NGOs, and the policy community more detail about other forms of *social* conflict. It compiles events reported by the *Associated Press* (AP) and *Agence France Presse* (AFP) from 1990-2015. Each record in SCAD refers to a unique social conflict event. To define an event, the researchers determined the principal actor(s) involved, the target(s), as well as the issues at stake. Events can last a single day or several months. A conflict was coded as a single event if the actors, targets, and issues are the same and if there is a distinct, continuous series of actions over time. SCAD thus excludes events that were part of organized armed conflicts. To validate the data collection methodology, the team double-coded 10% of the country-years in order to check if two researchers identified the same events from the news search and if the information regarding the event was identically inputted. Substantial agreement was found between the coders in all cases (Salehyan *et al*, 2017).

**GED 21.1** is a global dataset that covered the world in the years 1989-2020. It attempted to provide a globally consistent image of the phenomenon of organized violence. The GED is an ‘incident dataset’, sharing a highly similar conceptualization of ‘events’ with datasets such as the Global Terrorism Dataset, ACLED or SCAD. Each entry represents an incident, a real-life series of actions circumscribed to a certain typology and resulting in a certain outcome or set of outcomes. This means specifically fighting resulting in the death of at least one person. A GED event is equivalent to a collection or aggregation of multiple events in most ‘machine’ datasets. Compared to other datasets, GED is more geared towards extracting information relating to the incident (such as fatality figures) rather than binning actions into sets of categories. GED differs markedly to event data collection efforts where the event is defined as the individual source report. GED collates information from all sources referring to the same information and interprets all of them in order to extract information and define an event. Thus, UCDP GED would be a filtered version of such a dataset, with filtering performed according to certain interpretation rules, uncertainty management and definitions (Högbladh, 2021, 38).

The Cline Center Historical **Phoenix Event Data (the Open Event Data Alliance’s Phoenix database)** covers the period 1945-2019 and includes several million events extracted from 18.9 million news stories. This data was produced using the PETRARCH-2 software to analyze content from the New York Times (1945-2018), the BBC Monitoring's Summary of World Broadcasts (1979-2019) and the CIA’s Foreign Broadcast Information Service (1995-2004). It documents the agents, locations, and issues at stake in a wide variety of conflict, cooperation and communicative events in the CAMEO ontology (Althaus *et al*, 2019). There

is allegedly a plan to produce enhanced data using new software to create richer, more accurate geo-location, issue and event categories and incorporate additional sources.<sup>81</sup>

**Table 10 A Brief Comparison of Past Large Data Sets Processing Tools with Analytical Abilities**

| <b>The Conflict and Peace Data Bank (COPDAB)</b>                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Strengths</b>                                                                         | <ul style="list-style-type: none"> <li>• ‘Reportable’, or ‘newsworthy’ events (however, this can be seen, within context of theoretical discussion, as drawback) Timeliness (updated every 15 minutes)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Limitations</b>                                                                       | <ul style="list-style-type: none"> <li>• All social sciences share the problem of contextual limitations (Azar, 1980).</li> <li>• See (negative) comparison by Howell (1983) cited below.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Potential for FPM/FPA</b>                                                             | <ul style="list-style-type: none"> <li>• Data end in 1978. Utilisation only for some historical studies and comparison.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>World Event Interaction Survey (WEIS)</b>                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Strengths</b>                                                                         | <ul style="list-style-type: none"> <li>• Included brief textual descriptions for each event.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Limitations</b>                                                                       | <ul style="list-style-type: none"> <li>• Past literature on the subject reveals continuing confusion and controversy regarding a conflict-cooperation scale (Goldstein, 1992).</li> <li>• WEIS presented more serious problems for the aggregation of events into conflict-cooperation time series. WEIS was constructed within a conceptual framework that explicitly denies the possibility of reducing data to one dimension of conflict-cooperation (Goldstein, 1992).</li> <li>• Researchers have been inconsistent, however, in how to define the categories of conflict and cooperation within which to count events (Goldstein, 1992).</li> <li>• Researchers also do not agree on whether or how these event counts for conflict and cooperation can be combined to measure the level of conflict-cooperation in a country's behavior toward another on a single continuum (Goldstein, 1992).</li> <li>• There is no documented set of conflict-cooperation weights for all 61 (three-digit) WEIS event types (Goldstein, 1992).</li> <li>• See comparison by Howell (1983) cited below.</li> </ul> |
| <b>Potential for FPM/FPA</b>                                                             | <ul style="list-style-type: none"> <li>• Only for some historical studies and comparison.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>CASCON<br/>(the Computer-Aided System for the Analysis of Local Conflicts system)</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Strengths</b>                                                                         | <ul style="list-style-type: none"> <li>• The analytical framework was organized around six predefined conflict phases ranging from the issues leading to the initiation of the dispute to the resolution of the dispute.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Limitations</b>                                                                       | <ul style="list-style-type: none"> <li>• Outdated.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Potential for FPM/FPA</b>                                                             | <ul style="list-style-type: none"> <li>• To explore further used analytical framework.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>The Kansas Event Data System (KEDS)</b>                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Strengths</b>                                                                         | <ul style="list-style-type: none"> <li>• Possibly only that it was based on Reuters' News Service wire story leads (considering its reputation).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Limitations</b>                                                                       | <ul style="list-style-type: none"> <li>• As above, that it was based on Reuters' News Service wire story leads (considering overall problems with media sources).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Potential for FPM/FPA</b>                                                             | <ul style="list-style-type: none"> <li>• Only for some historical studies and comparison.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>The Program for the Analysis of Nonviolent Direct Action (PANDA)</b>                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Strengths</b>                                                                         | <ul style="list-style-type: none"> <li>• Not known.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

<sup>81</sup> <https://clinecenter.illinois.edu/project/machine-generated-event-data-projects/phoenix-data>

|                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Limitations</b>                                                        | <ul style="list-style-type: none"> <li>• Outdated.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Potential for FPM/FPA</b>                                              | <ul style="list-style-type: none"> <li>• Covered the years from 1984 to 1994.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>The FAST project (Early Recognition of Tensions and Fact Finding)</b>  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Strengths</b>                                                          | <ul style="list-style-type: none"> <li>• FAST was hosted by a non-governmental organization. Therefore, it enjoyed a level of political independence which in-house early warning mechanisms generally lack. Its flexibility allows adapting the overall methodology with ease.</li> <li>• It created an alternative newsfeed in the form of local information networks of field-monitors that log relevant information.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Limitations</b>                                                        | <ul style="list-style-type: none"> <li>• It was unable to predict the events in Andijan, Uzbekistan, in May 2005 when Islamist-instigated violence and brutal state repression led to the deaths of hundreds of civilians (Matveeva, 2006, 13).</li> <li>• The Swiss Agency for Development and Cooperation commissioned adelphi company to evaluate FAST International in 2006. However, this evaluation is not publicly available, see <a href="https://adelphi.de/en/projects/evaluation-of-the-swiss-conflict-early-warning-system-fast-international">https://adelphi.de/en/projects/evaluation-of-the-swiss-conflict-early-warning-system-fast-international</a></li> <li>• Moreover, no reply came from either the company that produced this assessment or from the funding agency.</li> </ul> |
| <b>Potential for FPM/FPA</b>                                              | <ul style="list-style-type: none"> <li>• To find inspiration for establishing early warning systems outside of political structures.</li> <li>• It was designed to serve the Swiss Foreign Ministry.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>The SHERFACS data set</b>                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Strengths</b>                                                          | <ul style="list-style-type: none"> <li>• It was particularly strong on coding nonstate actors such as ethnic groups, transnational actors, and non-national actors.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Limitations</b>                                                        | <ul style="list-style-type: none"> <li>• Outdated.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Potential for FPM/FPA</b>                                              | <ul style="list-style-type: none"> <li>• To explore further why or whether it was a strong monitoring tool for different types of actors.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Behavioral Correlates of War (BCOW)</b>                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Strengths</b>                                                          | <ul style="list-style-type: none"> <li>• It emphasized the need to distinguish between verbal and actual activity of bilateral state interactions.</li> <li>• It used multiple sources of information, including newspaper accounts, diplomatic histories, and chronologies.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Limitations</b>                                                        | <ul style="list-style-type: none"> <li>• It contained a much smaller set of cases.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Potential for FPM/FPA</b>                                              | <ul style="list-style-type: none"> <li>• Only for some historical studies and comparison.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>The Comparative Research on the Events of Nations data set (CREON)</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Strengths</b>                                                          | <ul style="list-style-type: none"> <li>• Not known.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Limitations</b>                                                        | <ul style="list-style-type: none"> <li>• It could not be used to study policy outputs over a continuous period of time or for countries not in the sample.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Potential for FPM/FPA</b>                                              | <ul style="list-style-type: none"> <li>• The purpose of CREON was to study the foreign policy process, rather than foreign policy output</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Formal Bilateral Influence Capacity (FBIC) Index</b>                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Strengths</b>                                                          | <ul style="list-style-type: none"> <li>• It was focused on understanding bilateral and network interactions based on patterns of complex interdependence.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Limitations</b>                                                        | <ul style="list-style-type: none"> <li>• There is a more innovative approach (run by students).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Potential for FPM/FPA</b>                                              | <ul style="list-style-type: none"> <li>• No longer operational.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>The Event Data on Armed Conflict and Security Project (EDACS)</b>      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

|                                                     |                                                                                                                                                                                                                |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Strengths</b>                                    | <ul style="list-style-type: none"> <li>• It attempted to utilize the speed of machine coding with direct human oversight.</li> </ul>                                                                           |
| <b>Limitations</b>                                  | <ul style="list-style-type: none"> <li>• Outdated.</li> </ul>                                                                                                                                                  |
| <b>Potential for FPM/FPA</b>                        | <ul style="list-style-type: none"> <li>• No longer operational.</li> </ul>                                                                                                                                     |
| <b>Global Networked Media Archive (GNMA)</b>        |                                                                                                                                                                                                                |
| <b>Strengths</b>                                    | <ul style="list-style-type: none"> <li>• Not known.</li> </ul>                                                                                                                                                 |
| <b>Limitations</b>                                  | <ul style="list-style-type: none"> <li>• The system archives material for one year only.</li> </ul>                                                                                                            |
| <b>Potential for FPM/FPA</b>                        | <ul style="list-style-type: none"> <li>• Only for some historical studies and comparison.</li> </ul>                                                                                                           |
| <b>The Global Event Data System (GEDS)</b>          |                                                                                                                                                                                                                |
| <b>Strengths</b>                                    | <ul style="list-style-type: none"> <li>• It was particularly strong on coding nonstate actors such as ethnic groups, transnational actors, and non-national actors.</li> </ul>                                 |
| <b>Limitations</b>                                  | <ul style="list-style-type: none"> <li>• Random checking shows that it is rather random compilation of sources.</li> </ul>                                                                                     |
| <b>Potential for FPM/FPA</b>                        | <ul style="list-style-type: none"> <li>• First rough introduction to a media environment.</li> </ul>                                                                                                           |
| <b>The Social Conflict Analysis Database (SCAD)</b> |                                                                                                                                                                                                                |
| <b>Strengths</b>                                    | <ul style="list-style-type: none"> <li>• Not known.</li> </ul>                                                                                                                                                 |
| <b>Limitations</b>                                  | <ul style="list-style-type: none"> <li>• No longer operational (1990-2016) and initially only covering Africa.</li> </ul>                                                                                      |
| <b>Potential for FPM/FPA</b>                        | <ul style="list-style-type: none"> <li>• Not relevant for FPA.</li> </ul>                                                                                                                                      |
| <b>GED 21.1</b>                                     |                                                                                                                                                                                                                |
| <b>Strengths</b>                                    | <ul style="list-style-type: none"> <li>• It collates information from all sources referring to the same information and interprets all of them in order to extract information and define an event.</li> </ul> |
| <b>Limitations</b>                                  | <ul style="list-style-type: none"> <li>• It is more geared towards extracting information relating to the incident (such as fatality figures) rather than binning actions into sets of categories.</li> </ul>  |
| <b>Potential for FPM/FPA</b>                        | <ul style="list-style-type: none"> <li>• It might be worth to explore used concept of uncertainty management.</li> </ul>                                                                                       |
| <b>Phoenix Event Data</b>                           |                                                                                                                                                                                                                |
| <b>Strengths</b>                                    | <ul style="list-style-type: none"> <li>• Not known.</li> </ul>                                                                                                                                                 |
| <b>Limitations</b>                                  | <ul style="list-style-type: none"> <li>• It documents the agents, locations, and issues.</li> </ul>                                                                                                            |
| <b>Potential for FPM/FPA</b>                        | <ul style="list-style-type: none"> <li>• There is a plan to produce enhanced data using new software.</li> </ul>                                                                                               |

The overview documents enormous past efforts, including a lot of money, invested in this field. However, the results were not that encouraging. In fact, none of these projects seems to be operational now.

### 4.3. Utilisation of GDELT Project data in Scientific Articles

In the following part we come back to GDELT project. We discuss selected articles that used GDELT Project data in three scientific databases (Sage, JSTOR and CEEOL). The aim was to identify whether the authors came to surprising/novel findings, whether there is a potential identified for FPM/FPA, and to discuss methodological pros and cons in cited articles (including their presence or absence). Considering time- and cost-effectiveness, only a few articles – those most recent ones - were selected for each database.

## SAGE Database

Fifty articles (an hour later, 58) were identified as using GDELT Project data (using GDELT as a keyword), for September 2024 period. However, further refinement showed that two articles focused on economy, one on food delivery platforms, one discussed Arab state narratives on normalization with Israel but apparently without using GDELT, one examined the information flows between local and national media in the USA online media ecosystem, another was an examination of editorial cartoons about the Coronavirus pandemic, etc. – these articles were excluded from further analysis.

**Table 11: GDELT in Sage Database**

| Surprising/<br>Novel Findings                                                                                                                                                                                                                                                                                   | Potential for<br>FPM/FPA                                                              | Methodological<br>Pros / Strengths<br>Discussed | Methodological Cons / Limitations<br>Discussed                                                                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Article:</b> Szalai & Garai (2024)                                                                                                                                                                                                                                                                           |                                                                                       |                                                 |                                                                                                                                                                                                                                      |
| <b>Topic of Analysis:</b> The number of government-level interactions initiated towards the Czech Republic, Hungary, Poland, and Slovakia was analysed in a European context between 2004 and 2020.                                                                                                             |                                                                                       |                                                 |                                                                                                                                                                                                                                      |
| <b>YES:</b> The results defy the expectations of the small state literature and suggest a more complicated relationship between international status and the image of small states.                                                                                                                             | Jointly with studies with similar focus but using different sources and methodologies | Restricted access                               | Restricted access                                                                                                                                                                                                                    |
| <b>Article:</b> Hammond & Weidmann (2014)                                                                                                                                                                                                                                                                       |                                                                                       |                                                 |                                                                                                                                                                                                                                      |
| <b>Topic of Analysis:</b> Whether machine-coded event datasets can approximate the spatial pattern of a conflict to a reasonable extent.                                                                                                                                                                        |                                                                                       |                                                 |                                                                                                                                                                                                                                      |
| <b>YES:</b> The results confirm a geographic bias; whereas GDELT over-reports violence close to the capital, the opposite applies in remote locations.                                                                                                                                                          | Not relevant                                                                          | <b>YES</b>                                      | It should be used with caution for geo-spatial analyses at the subnational level: its overall correlation with hand-coded data is mediocre, and at the local level major issues of geographic bias exist in how events are reported. |
| <b>Article:</b> Dowd, Justino, Kishi & Marchais (2020)                                                                                                                                                                                                                                                          |                                                                                       |                                                 |                                                                                                                                                                                                                                      |
| <b>Topic of Analysis:</b> They leveraged data from a sample of social media reports of violence through public posts to Twitter (X) and compared these with events coded from media and published sources by the ACLED Project along two dimensions: 1) geography of violence; and 2) temporality of reporting. |                                                                                       |                                                 |                                                                                                                                                                                                                                      |
| <b>YES:</b> The profile of violence recorded varied significantly by source.                                                                                                                                                                                                                                    | Not relevant                                                                          | <b>YES</b> (but more focused on ACLED)          | The findings point to the value of drawing on a constellation of various source types given their complementary advantages.                                                                                                          |
| <b>Article:</b> Malik, Hopp, Chen & Weber (2021)                                                                                                                                                                                                                                                                |                                                                                       |                                                 |                                                                                                                                                                                                                                      |
| <b>Topic of Analysis:</b> To explore how news media's attention on COVID-19 and moralizing language in COVID-19 news vary with respect to ultimate (historical pathogen prevalence) and proximate (spread of COVID-19) socio-psychological factors.                                                             |                                                                                       |                                                 |                                                                                                                                                                                                                                      |
| NO, speculative explanations                                                                                                                                                                                                                                                                                    | NO                                                                                    | <b>YES</b>                                      | Because news headlines are typically quite short, the likelihood of dictionary-based, moral signal detection was rather low in the study.<br><br>To further validate the automatically                                               |



| Surprising/<br>Novel Findings                                                                                                                                                                                                                                                                                                                                                             | Potential for<br>FPM/FPA                                                                                                                                                                                                                               | Methodological<br>Pros / Strengths<br>Discussed | Methodological Cons / Limitations<br>Discussed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                        |                                                 | <p>extracted moral content scores via crowd-sourced, manual content annotations on a set of randomly selected articles.</p> <p>Future research may complement large-scale, quantitative analysis with a more qualitative, in-depth examination of journalistic practises during the COVID-19 pandemic across select regions and sub-topics.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Article:</b> Elshendy and Fronzetti Colladon (2017)                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                        |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Topic of Analysis:</b> Propose a novel method to improve the forecast of macroeconomic indicators based on social network and semantic analysis techniques.                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                        |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| NO                                                                                                                                                                                                                                                                                                                                                                                        | Suggest a novel approach which combines network analysis and news-related variables (such as their volume and tone), offering new metrics that can be easily integrated in other existing predictive models, with the aim of improving their accuracy. | YES                                             | <i>It might be the case that we missed some economic events, for example connected to the education sector, or sometimes not classified as business events. In addition, some events might be discussed in a larger number of news whereas other neglected, depending on the strategies adopted by different newspapers or news agencies. It could also happen that a specific event is discussed in some news, after a long time from its first occurrence.</i>                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Article:</b> Jünger & Gärtner (2021)                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                        |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Topic of Analysis:</b> Analysis contemplates general patterns of issue cycles when the events of interest are hidden, overlain, or even distorted by extensive coverage of other events.                                                                                                                                                                                               |                                                                                                                                                                                                                                                        |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>YES:</b> The use of the databases and a pipeline consisting of automated methods for data collection and analysis prove appropriate in news research. This is surprising given the high error rates (precision and recall). Despite the large number of faulty selection steps and the resulting noise of the data, using the GDELT can lead to meaningful and even puzzling findings. | Although the data are quite noisy, automated content analysis combined with distributed lag models is a promising approach for studying issue cycles. The model can be used to visualize issue cycles.                                                 | YES                                             | <p>The data quality is quite low. only 57% of the articles examined clearly identify events of one-sided violence at the given location and date (precision = 57%; 95% CI [0.47, 0.67]). In the main, it is the combination of the different data for an event that is flawed. Country (85%), event date (77%), article date (95%), and the topic of violence (97%) on their own are each plausible most of the time and reach the level of acceptable reliability scores.</p> <p>The situation is similar with regard to events. Nearly one third (31%) of the events in the UCDP GED cannot be found in the GDELT by our procedure. For a further 18%, the data are too vague to make an identification. Only about half of the events recorded in the UCDP GED can be clearly found in the GDELT (recall = 51%; 95% CI [0.41, 0.60]).</p> |



We have learned that almost all selected articles discussed GDELT research limitations. The overall conclusions were not much optimistic in that regard. As a result, for example Dowd, Justino, Kishi & Marchais (2020) suggested using complementary various sources to reach reliable analysis. Elshendy and Fronzetti Colladon (2017) proposed to combine network analysis and news-related variables as a methodological solution. This negative assessment of GDELT seems to contradict finding and suggestions by Jünger & Gärtner (2021, n.p.):

*“The use of the databases and a pipeline consisting of automated methods for data collection and analysis prove appropriate in news research. This is surprising given the high error rates (precision and recall). Despite the large number of faulty selection steps and the resulting noise of the data, using the GDELT can lead to meaningful and even puzzling findings.”*

As they explained, “...the distributed lag model in combination with large databases overcomes the limitation of other studies”. There is an important caveat, though. As they explained next,

*“...the analysis strategy needs to be verified for longer periods of time, other regions, and other topics. For example, the consequences of deciding on specific function shapes or the role of significance tests in large-n studies have to be further investigated. Therefore, we suggest further studies to explore different modeling strategies and data using the replication data and scripts.”*

Similarly, Szalai & Garai (2024) argued that their results, partly based of GDELT database, “...defy the expectations of the small state literature and suggest a more complicated relationship between international status and the image of small states.” However, this finding was also based (one of research questions) on indicators and comparison that seems to be strange, namely “Surprisingly, the biggest correlation with all categories of interactions (including the number of cooperative, conflictual, and all interactions) is shown in the case of the military budget. In these cases, a correlation coefficient of 0.608-0.620 shows moderately strong alignment.” (Szalai & Garai, 2024, 14). They used five different measurements of relative state size: territory, population, GDP, military budget, and the size of armed forces. In conclusion, they even argue that “This observation underlines the general realist notion that in the 21st century, military power is still regarded as the source of importance and political weight in the international system.” (Szalai & Garai, 2024, 20). In part, this unusual conclusion may have been caused by the fact that the authors, as they admit, “have not analysed the content of interactions, only their number and qualitative differentiation was only made in terms of cooperative or confrontative interactions.” (Szalai & Garai, 2024, 24 - footnote).

Thus, even those who used GDELT and claim to come to surprising and novel findings, seem to based their findings either on a single case study approach that they themselves admit must be verified within other contexts, or on questionable arguments, if not methodology.

## **JSTOR Database**

This database has advantage that it covers, in addition to selected academic articles, also reports published by research institutes. The database yielded 126 results when searching (September 2024) for ‘GDELT’. The software allowed ordering of importance (‘relevance’ - other options are ‘newest’ or ‘oldest’) of sorted articles. Following this step, we excluded articles that focused on Open-Source Intelligence (OSINT) and Big Data Analytics (BDA) with an emphasis on cyber reconnaissance and the associated privacy concerns, The Global

Conversation in Foreign Affairs, the impact of economic crisis on democracy, and articles with similar focus.

We searched for methodological challenges in sections related to methodology (if available), or in introduction, or in ‘data and research design’ sections. The final check/search was provided using a word ‘methodology’ for full text search. However, this later approach was not really productive.

**Table 12: GDELT in JSTOR Database**

| Surprising/<br>Novel Findings                                                                                                                                                                                                                                                                        | Potential for FPM/FPA                                                                                                                                                                                                                 | Methodological Pros /<br>Strengths Discussed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Methodological Cons /<br>Limitations Discussed                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Article:</b> Brannen, Haig & Schmidt (2020)                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Topic of Analysis:</b> Mass protests roots and spread globally                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| No                                                                                                                                                                                                                                                                                                   | Yes                                                                                                                                                                                                                                   | Yes. While the numbers varied based on different data collection techniques, the trends identified using the CSIS data could also be seen in data from the Integrated Crisis Early Warning System and the Armed Conflict Location & Event Data Project. However, given coding accuracy problems, strict event selection criteria that excluded acts of discontent (such as riots and some instances of violent government repression), data cleaning, the absence of data for countries and regions such as North Korea and Kashmir, and conservative projections for the final two months of 2019, it is likely that CSIS estimates do not fully capture protests over the past decade. Rather, a representational picture is provided, which when compared with available reporting provides a global macro picture of events underway. | Yes: It does rely heavily on the English language, with the accuracy of its non-English coverage potentially subject to some error due to machine translation.<br>North America and Europe are likely overrepresented, with areas with less English-language media coverage likely underrepresented.<br><br>It is reliant on the input of media coverage, so in countries with less media output or where media is highly controlled, coverage is likely to be reduced. |
| <b>Article:</b> De Spiegeleire <i>et al</i> , 2017a                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Topic of Analysis:</b> They presented some general global trends in cooperation and conflict over time. It then zoomed it in on how these trends differ geographically. They finally took a closer look at the role that the Netherlands plays in all of this – both as an actor and as a target. |                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| ? Found a surprising amount of Western ‘Allies’ amongst the world’s least cooperative countries (e.g. Iraq, Israel and Turkey). The most striking geographical findings are the improvements in AGS in                                                                                               | Yes, they approach to ‘monitoring’ effort aspires to collate and curate a systematic empirical evidence base that allows all relevant stakeholders – analysts, military planners, policy-makers, but also interested companies, NGOs, | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

| Surprising/<br>Novel Findings                                                                                                                                                                                                                    | Potential for FPM/FPA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Methodological Pros /<br>Strengths Discussed                                                                                                                                | Methodological Cons /<br>Limitations Discussed                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| various African regions (except for the military domain) and rising tensions in the Middle East.                                                                                                                                                 | citizens, etc. – to get a better grip on fundamental international trends.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                             |                                                                                                                                                                                                                                                               |
| <b>Article:</b> De Spiegeleire, Akimov & Shantz (2015)                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                             |                                                                                                                                                                                                                                                               |
| <b>Topic of Analysis:</b> Chronicle of Russian assertiveness in its foreign and security policies throughout 2014                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                             |                                                                                                                                                                                                                                                               |
| No                                                                                                                                                                                                                                               | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Yes, they argue that felt that the automatically generated GDELT event-dataset performed remarkably well in identifying the key story points behind Russia's assertiveness. | Yes, HCSS developed a way to recode a subset of this larger set of events into different types of assertiveness (see scan). GDELT was unable to identify the qualitative change in Russian foreign policy behavior that the annexation of Crimea represented. |
| <b>Article:</b> Abb & Strüver (2015)                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                             |                                                                                                                                                                                                                                                               |
| <b>Topic of Analysis:</b> The case of Sino–Southeast Asian relations to gain insights on China's ability to muster support for its global agenda.                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                             |                                                                                                                                                                                                                                                               |
| They found a strong correlation between the quality of regional bilateral relations and global policy alignment, which indicates that patterns of regional cooperation and conflict also impact the trajectory of China's rise in world affairs. | The event-based estimate of the quality of bilateral relations has a pronounced and highly significant positive effect on global alignment. Of the independent variables entered into this model, it is the strongest predictor of voting alignment. <sup>26</sup> This suggests that neighboring states are indeed sensitive to recent developments at the regional level when deciding whether or not to align with China in the United Nations, although it is beyond the scope of our study to determine the exact causal mechanism behind this pattern | Demonstrate the utility of bringing a quantitative approach to a field that has already been exhaustively covered in the qualitative literature.                            | Southeast Asian countries' alignment with China is influenced by idiosyncratic factors that are not included in the general model.                                                                                                                            |
| <b>Article:</b> De Spiegeleire <i>et al</i> (2017b)                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                             |                                                                                                                                                                                                                                                               |
| <b>Topic of Analysis:</b> Nations' share in global assertiveness                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                             |                                                                                                                                                                                                                                                               |
| Nations' share in global assertiveness                                                                                                                                                                                                           | Analyze and compare the behavior and the rhetoric of every single state (and many non-state) actor(s) in the world since 1979 on a daily basis.                                                                                                                                                                                                                                                                                                                                                                                                             | They use three large event databases: GDELT, Lockheed Martin's ICEWS (Integrated Crisis Early Warning System) and the Open Event Data Alliance's Phoenix database           | Yes, they categorized every event code along functional lines into a coding scheme we call 'DISMEL', allowing us to zoom in on diplomatic, informational, security, military, economic and legal types of events. All of these coding schemes are             |

| Surprising/<br>Novel Findings | Potential for FPM/FPA | Methodological Pros /<br>Strengths Discussed | Methodological Cons /<br>Limitations Discussed                           |
|-------------------------------|-----------------------|----------------------------------------------|--------------------------------------------------------------------------|
|                               |                       |                                              | implemented as filters<br>in the Business Intelligence<br>software tool. |

Brannen, Haig, & Schmidt (2020) criticised two aspects of GDELT. Firstly, it is dominance of English language sources that may lead to different levels of representation. Second, there is variable freedom of the press that impacts variety of reported events and issues. De Spiegeleire, Akimov & Shantz (2015) claim that there was developed a method how to recode a subset of this larger set of events into different types of assertiveness. Furthermore, De Spiegeleire *et al* (2017b) categorized every event code along functional lines into a coding scheme. These may be seen as positive developments – just we are not sure whether these are based on reliable data. Abb & Strüver (2015) claimed that “*the event-based estimate of the quality of bilateral relations has a pronounced and highly significant positive effect on global alignment.*” This should be specified as politically relevant correlation. Yet there is a caveat, “*it is beyond the scope of our study to determine the exact causal mechanism behind this pattern.*” (Abb & Strüver, 2015).

In general, most authors seem to suggest, explicitly or implicitly, that their methodologies and results can be relevant for FP. Most explicit in that regard are Brannen, Haig, & Schmidt (2020).

**Table 13: HCSS Assertiveness Recoding**

|                              |                   |            |
|------------------------------|-------------------|------------|
| <b>Positive/<br/>Neutral</b> | <b>Rhetorical</b> | Diplomatic |
|                              |                   | Economic   |
|                              |                   | Military   |
|                              | <b>Factual</b>    | Diplomatic |
|                              |                   | Economic   |
|                              |                   | Military   |

|                 |                   |            |
|-----------------|-------------------|------------|
| <b>Negative</b> | <b>Rhetorical</b> | Diplomatic |
|                 |                   | Economic   |
|                 |                   | Military   |
|                 | <b>Factual</b>    | Diplomatic |
|                 |                   | Economic   |
|                 |                   | Military   |

Source: De Spiegeleire, Akimov & Shantz (2015,18).

**Table 14: Example of HCSS Assertiveness Recoding**

|            |          |            |      |                                                                     |
|------------|----------|------------|------|---------------------------------------------------------------------|
| Rhetorical | Negative | Diplomatic | 131  | Threaten non-force, not specified below                             |
|            |          |            | 101  | Demand information, investigation                                   |
|            |          |            | 1053 | Demand release of persons or property                               |
|            |          |            | 103  | Demand aid, protection, or peacekeeping                             |
|            |          |            | 1053 | Demand release of persons or property                               |
|            |          |            | 103  | Demand material aid, not specified below                            |
|            |          |            | 1055 | Demand that target allows international involvement (non-mediation) |
|            |          |            | 105  | Demand mediation                                                    |
|            |          |            | 106  | Demand withdrawal                                                   |
|            |          |            | 107  | Demand ceasefire                                                    |
|            |          |            | 111  | Criticize or denounce                                               |
|            |          |            | 1121 | Accuse of crime, corruption                                         |
|            |          |            | 112  | Accuse, not specified below                                         |
|            |          |            | 1122 | Accuse of human rights abuses                                       |
|            |          |            | 1123 | Accuse of aggression                                                |
|            |          |            | 1124 | Accuse of war crimes                                                |
|            |          |            | 1125 | Accuse of espionage, treason                                        |
|            |          |            | 114  | Complain officially                                                 |
|            |          |            | 115  | Bring lawsuit against                                               |
|            |          |            | 1311 | Threaten to reduce or stop aid                                      |
|            |          |            | 1313 | Threaten to reduce or break relations                               |
|            |          |            | 134  | Threaten to halt negotiations                                       |
|            |          |            | 135  | Threaten to halt mediation                                          |
|            |          |            | 136  | Threaten to halt international involvement (non-mediation)          |
|            |          |            | 139  | Give ultimatum                                                      |
|            |          | Economic   | 1011 | Demand economic cooperation                                         |
|            |          |            | 1054 | Demand easing of economic sanctions, boycott, or embargo            |
|            |          |            | 1031 | Demand economic aid                                                 |
|            |          |            | 1312 | Threaten to boycott, embargo, or sanction                           |
|            |          | Military   | 1012 | Demand military cooperation                                         |
|            |          |            | 1056 | Demand de-escalation of military engagement                         |
|            |          |            | 1032 | Demand military aid                                                 |

Source: De Spiegeleire, Akimov & Shantz (2015,18).

## CEEOL Database

GDELT key word was found in 29 articles only in September 2024. Moreover, some of them were in original (not English) languages. Others mentioned GDELT only briefly, if at all. For example, Movchan (2018) discussed the essence of computer methods of political forecasting, their classification and characteristics of different groups of methods. Lađevac and Stekić (2021) discussed FP political risk assessment, while shifting political risk assessment, from the economic to the political moment of political risk assessment. However, the use of data sources, which - Lađevac and Stekić (2021) believed to be the most used in the literature and empirical research – ACLED and GDELT – was not possible to delineate.<sup>82</sup> As it was clarified further,

*“...we did not use GDELT as a data source for our analysis. Instead, we mentioned GDELT as one of several alternative research options alongside ACLED and other data sources (see page 55 for more details). The excerpt you found is from our conclusion. That said, GDELT can indeed have a significant impact on media reporting and sentiment analysis.”<sup>83</sup>*

<sup>82</sup> We contacted author, ivona@diplomacy.bg.ac.rs, nenad.stekic@diplomacy.bg.ac.rs February 3, 2025.

<sup>83</sup> Nenad Stekić<nenad.stekic@diplomacy.bg.ac.rs , 4.2.2025

In case of Tomaszewska (2019), GDELT was used for providing evidence or claim in just one sentence.

**Table 15: GDELT in CEEOL Database**

| Surprising/<br>Novel Findings                                                                                                                                                                                                                                        | Potential for FPM/FPA                                                                                                                                                  | Methodological<br>Pros / Strengths<br>Discussed                           | Methodological<br>Cons / Limitations<br>Discussed                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Author:</b> Akgül (2014)                                                                                                                                                                                                                                          |                                                                                                                                                                        |                                                                           |                                                                                                                                                    |
| <b>Topic of Analysis:</b> The ways of using published data sets of quantitative methodologies in international relations, some selected data sets and their access are explained.                                                                                    |                                                                                                                                                                        |                                                                           |                                                                                                                                                    |
| No                                                                                                                                                                                                                                                                   | With progress in science                                                                                                                                               | Data sets capable of multilingual scanning are most likely to be winning. | The figures in these data sets are largely taken from newspapers. Nowadays, when press impartiality is questioned, these data are also questioned. |
| <b>Author:</b> Trajanov <i>et al</i> (2017)                                                                                                                                                                                                                          |                                                                                                                                                                        |                                                                           |                                                                                                                                                    |
| <b>Topic of Analysis:</b> To explore interdependence of global economy represented by the dataset on trade and FDI and political relations based on the dataset provided by the GDELT project.                                                                       |                                                                                                                                                                        |                                                                           |                                                                                                                                                    |
| No, there is a significant correlation between economic and political relations. The results suggest that relations with HI countries exhibit completely opposite patterns for economic-political correlations compared with the relations with all other countries. | Probably not                                                                                                                                                           | No                                                                        | No                                                                                                                                                 |
| <b>Author:</b> Lađevac and Stekić (2021)                                                                                                                                                                                                                             |                                                                                                                                                                        |                                                                           |                                                                                                                                                    |
| <b>Topic of Analysis:</b> Assessing the political risks.                                                                                                                                                                                                             |                                                                                                                                                                        |                                                                           |                                                                                                                                                    |
| No                                                                                                                                                                                                                                                                   | No                                                                                                                                                                     | No                                                                        | No                                                                                                                                                 |
| <b>Author:</b> Tomaszewska (2019)                                                                                                                                                                                                                                    |                                                                                                                                                                        |                                                                           |                                                                                                                                                    |
| <b>Topic of Analysis:</b> China's BRI and the risk of indebtedness among its beneficiaries                                                                                                                                                                           |                                                                                                                                                                        |                                                                           |                                                                                                                                                    |
| No                                                                                                                                                                                                                                                                   | Only indirectly, e.g. using it in communication with partners.                                                                                                         | No                                                                        | No                                                                                                                                                 |
| <b>Author:</b> Rak (2020)                                                                                                                                                                                                                                            |                                                                                                                                                                        |                                                                           |                                                                                                                                                    |
| <b>Topic of Analysis:</b> Repression and Blockupy Radicalization in Germany                                                                                                                                                                                          |                                                                                                                                                                        |                                                                           |                                                                                                                                                    |
| No                                                                                                                                                                                                                                                                   | No                                                                                                                                                                     | No                                                                        | No                                                                                                                                                 |
| <b>Author:</b> Stekić (2020)                                                                                                                                                                                                                                         |                                                                                                                                                                        |                                                                           |                                                                                                                                                    |
| <b>Topic of Analysis:</b> Geopolitical phenomena quantification                                                                                                                                                                                                      |                                                                                                                                                                        |                                                                           |                                                                                                                                                    |
| No                                                                                                                                                                                                                                                                   | It may be useful to explore further e.g. Weisi, Guo, Gleditsch, Nils & Wilson, Alexander, "Retool AI to forecast and limit wars", Nature, Vol. 562, 2018, pp. 331–333. | Yes, this is meta-review. However, GDELT is mentioned only                | Yes, this is meta-review. However, GDELT is mentioned only with reference to Leetaru and Schrodtt (2013) study                                     |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                          |  |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|--|
|  | <p>Schneider, Gerald, Gleditsch, Nils and Carey, Sabine, <i>“Forecasting in international relations: One quest, three approaches”</i>, Conflict Management and Peace Science, Vol. 28, No. 1, 2011, pp. 5–14</p> <p>Kremer, Illan, Mansour, Yishay and Perry, Motty, <i>“Implementing the ‘wisdom of the crowd’”</i>, Journal of Political Economy, Vol. 122, No. 5, 2014, pp. 988–1012.</p> <p>Jeffrey, Friedman et al., <i>“The value of precision in probability assessment: Evidence from a large-scale geopolitical forecasting tournament”</i>, International Studies Quarterly, Vol. 62, No. 2, 2018, pp. 410–422.</p> | <p>with reference to Leetaru and Schrod (2013) study</p> |  |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|--|

Stekić (2020) and Akgül (2014) dealt with methodological issues in their articles. Akgül (2014) linked questioning press impartiality with data reliability. Moreover, his remark that *“data sets capable of multilingual scanning are most likely to be winning”* is still relevant, although it should be mentioned that there is almost no problem today to translate almost any language into English with a reasonable level of understanding. Stekić (2020) provided the meta-review of the most used quantitative methods in the study of geopolitics. Stekić (2020, n.p.) concluded that *“the key advantage of quantifying geopolitical phenomena is also their biggest problem – the data sources diversity used to quantify different phenomena results in many inconsistencies, ranging from research practices, research methods and techniques to the interpretation of statistical findings.”*

With this conclusion we move towards most recent media monitoring systems in the next part.

#### **4.4. Overview of Most Recent Media Outputs Monitoring Systems - identification, accessibility and ranking (scores) on online review sites**

This text explains and provides identification, accessibility and ranking (score) of software tools used for media monitoring systems done through compilation of reviews found on six software reviewing platforms G2, TrustPilot, Capterra, Trustradius, Slashdot and OMR. Reviews are as of November-December 2024. In addition, the selection and primary analyses includes some analytical systems with advanced media monitoring capabilities. This overview is based on reviews of real users as compiled at multiple review platforms. Obviously, there was challenge with, sometimes, too many reviews available, as well as, with very few reviews available. In the former case, it becomes impossible to read and to make reasonable summary of both positive and negative reviews. However, sometimes online tools provided summary assessment based on these individual assessments. In the latter case, one or two reviews are insufficient number to come to any reasonable analytical conclusions. Fortunately, in addition to textual reviews, all review websites offered their numerical expression (or their mathematical summary). This greatly facilitated overall orientation and further qualitative assessment.

The advantage of utilised approach is that we used for comparison six software review platforms that claim to be written by real users. Experiences of real users seem to be the best approach for getting details about otherwise often hidden or, at best, incomplete portfolio of



features and methodologies used in software, and in particular, AI-supported software tools used for media outputs monitoring.

Considering both number of available tools, and challenges in assessing their usefulness for FPA in particular (as well as in general), this seemed to us the most rational and economic approach for their identification, selection and assessment. It should be noted that some of these tools speed up developments of their unique capabilities. Therefore, this report will be, by definition, outdated very quickly. Nonetheless, it offers probably the first relatively comprehensive analytical overview of situation in media monitoring business – software available at the end of 2024.

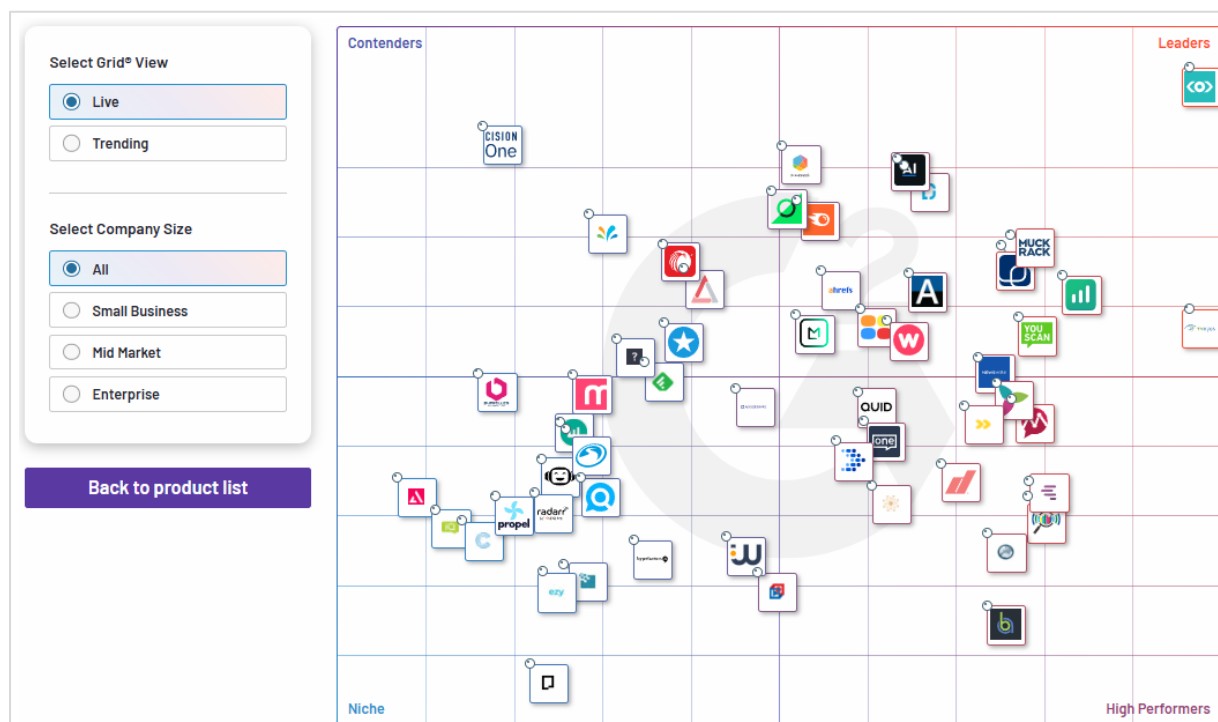
Scale of ranking used was maximum 5 out of 5, then we made selection with ranking 4.5 and more, for Trustradius ranking scale was maximum 10 out 10, selection was done for those tools with ranking above nine. Together, those tools with 90 % level of satisfaction in ranking, and above, were assessed further in our report in detail. This allowed us to find the way how to identify and assess estimated a few hundred software tools that exist globally, either specialised in media outputs monitoring, or having advanced media monitoring features. Some specialised websites suggested better or equally relevant similar tools for additional comparison. This allowed us to identify, and when appropriate, to include additional tools. The selection and categorisation were double-checked.

For comparison, it should be noted that Grizāne, Isupova and Vortel (2022, 17) used for their assessment and comparison of social media monitoring tools as selection criteria; a) interviews with professionals, who used these tools on a daily basis; b) analysing tools that appear regularly in market research companies' reports; and c) analysing the use of social media monitoring tools in existing research reports. Their selection included tools considered both market leaders and more niche products. It appears that such selection is less objective, and certainly much more limited, than ours.

G2 software reviews site (G2 Grid<sup>®</sup>) offered additional help in that regard - an overview of 'trending' softwares in media monitoring and another overview with 'live' feature in media monitoring - Chart 20 and 21 (Status as of December 2024). This allowed us to identify and preferably select those tools on the right side of graphs, either 'trending' or 'live' software popularity. Of course, as mentioned, the selected tools were subject to further in-depth analysis. Some software tools that were identified as having only limited media monitoring abilities were excluded from our sample.

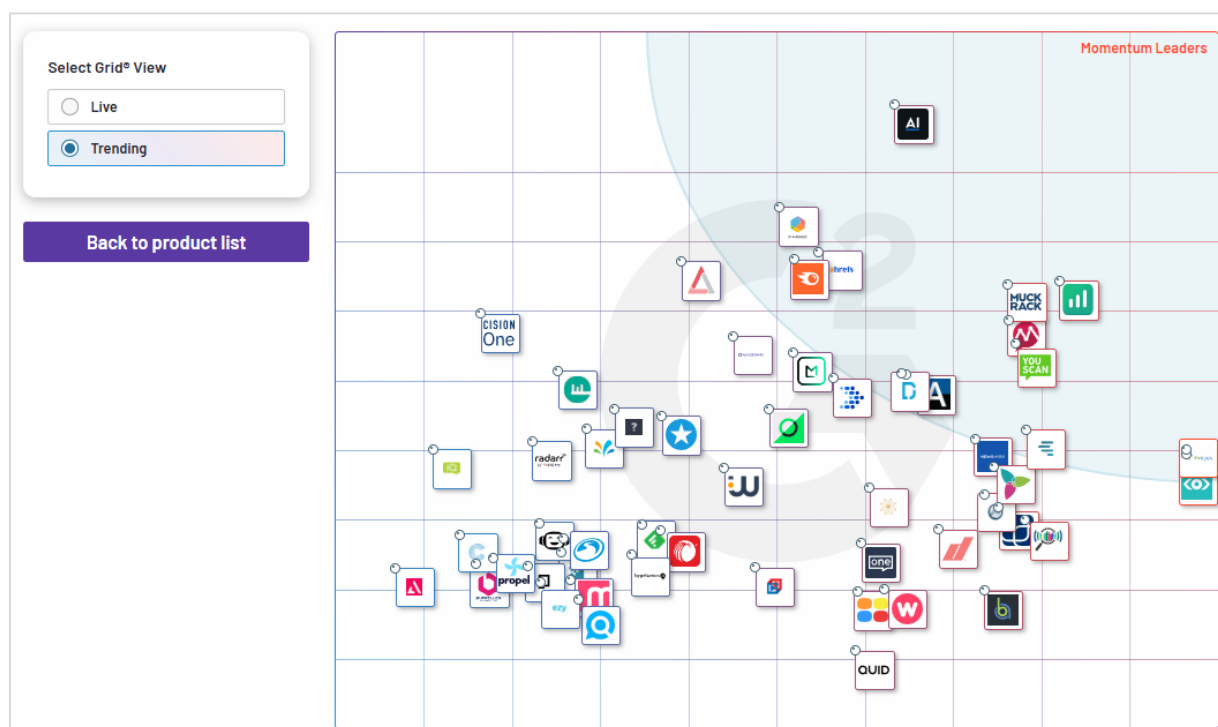


**Chart 20: G2 Grid® ‘Live’ Softwares in Media Monitoring**



Source: G2 Grid® for Media Monitoring

**Chart 21: G2 Grid® ‘Trending’ Softwares in Media Monitoring**



Source: G2 Grid® for Media Monitoring

We should perhaps explain what is meant by media monitoring tool/software. A very basic introduction is provided by Mohamed (2024). It should be specified that there are actually often used three synonyma here: Media tracking software, media monitoring or media

intelligence software. In general, this software “helps businesses keep track of their brand’s presence across various media channels. It monitors mentions of specific keywords, phrases, or brands in print, broadcast, and digital media, providing real-time insights and comprehensive reports” (Mohamed, 2024).

#### 4.4.1 European Union and Media Outputs Monitoring Efforts

Probably the first overview of four publicly accessible systems of the basic engine, the Europe Media Monitor (EMM) family of applications, that covered at that time between 19 and 50 languages since 2004 (with early phase since 2002), was written by Steinberger, Pouliquen & Goot (2009). The EMM gathered then a daily average of 80 to 100,000 news articles in approximately 50 languages from about 2,200 hand-selected web news sources, from a couple of hundred specialist and government websites, as well as from about twenty commercial news providers. In 2018, EMM gathered about 300,000 news articles per day in up to 70 languages.<sup>84</sup> However, data for 2024 (?) suggested that this number was significantly lower, up to 220,000 news reports per day.<sup>85</sup> Another source claimed that it was actually over 350,000 articles per day in 2021 (Jacquet and Linge, 2021).

The EMM news gathering engine feeds its monitored outputs into the four fully-automatic public news analysis systems, and to their non-public sister applications. NewsBrief and MedISys is focused at breaking news and short-term trend detection, early alerting and up-to-date category-specific news display. For NewsBrief and MedISys there are different access levels. NewsExplorer is focused on daily overviews, long-term trends, in-depth analysis and extraction of information about people and organizations. EMM-Labs includes various tools to visualize the extracted news data.

EMM domain includes Border Security, Cybercrime & Fighting Crime, Socio Political Event Monitoring, Public Health Threats & Food Safety, Conflict Early Warning, Science and the Citizen. Clearly, foreign policy is not included – only if one considers Conflict Early Warning domain as overarching domain.

EMM features include Automatic language recognition, Entity extraction, Quote extraction/detection, Geotagging, Tonality/sentiment analysis, Duplicate detection, Categorisation, Filtering, Clustering, Statistics and Event extraction.

However, it appears that EMM is not widely used by scientists - it is challenging to find scientific articles that would discuss its pros and cons. A few articles that dealt with this software were Daskalova (2008), Pajzs *et al* (2014), and again from the team of the Joint Research Centre of the European Commission, led by Steinberger *et al* (2017). There are some studies that utilised EMM database for their own related research (Kapočiūtė-Dzikienė, 2024). Possible issue with low usage could be perhaps still identified as

*“EMM only shows some of the many possible views while further interesting data combinations are not available and there is no interface allowing users to make their own meta-data queries on the data. Building a data representation and an interface that would allow users to do this is a major task that yet needs to be tackled. Time series analyses would be particularly insightful. How have the major media themes developed over time, and what are the differences across countries. Which countries are the trendsetters that dominate the international media landscape? What are the main subject domains and the main concepts mentioned in the context of certain persons and organisations? Who are the other entities mentioned in the same context, and how are these changing over time?”* (Steinberger *et al*, 2017, 23).

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<sup>84</sup> [https://knowledge4policy.ec.europa.eu/online-resource/europe-media-monitor-emm\\_en](https://knowledge4policy.ec.europa.eu/online-resource/europe-media-monitor-emm_en)

<sup>85</sup> <https://data.jrc.ec.europa.eu/collection/emm>

Unfortunately, as mentioned, there was no communication from EMM. In spite of repeated requests in a period of a few months, and public encouragement to contact EMM staff, no explanation was provided. This suggests that there is no progress, and probably no interest in development of capabilities in this area.

Another large EU-funded research media monitoring project, already briefly mentioned – SUMMA, also seems to result in failure. Paradoxically, its results were seen, during the official evaluation session, as excellent.

SUMMA (Scalable Understanding of Multilingual Media) project that was an EU Horizon 2020 funded Big Data project which ran from 2016 to 2019. This large project with multiple partners allegedly “*pushed the boundaries of multilingual media monitoring, pulling together multiple language technologies to support monitoring of the world's media.*” SUMMA received the highest performance rating from the project review panel in 2019. In 2017, these were “*in various stages of transfer into production.*”<sup>86</sup> However, promised “details on blog” were not accessible. We contacted original corresponding authors as well as additional authors.<sup>87</sup> We received an answer that leads us to conclusion that there are perhaps too many media monitoring (and other) EU and nationally funded projects that lead to nowhere.

*“SUMMA focused primarily on monitoring and cataloguing broadcast news in novel ways (monitoring social media only ever if at all was a side-show). Of the various project partners, two were end-use partners (i.e., organisations that would actually use the technology developed): The BBC and Deutsche Welle. All others were technology developers/providers. Unfortunately, the BBC decided not to buy into the SUMMA technology after the project ended. As far as I am informed, everyone at the BBC involved in this project has now moved on to different projects or even left the BBC. Deutsche Welle had a follow-up with a start-up that emerged out of SUMMA for a while, but to my knowledge, that start-up has since folded. I myself have moved on as well, but will be happy to tap into my memory of the current state of affairs if you are interested in particular technologies, although, as you will be aware, progress in this area has been mind-boggling over the past 5 years or so, so chances of getting anything that is state-of-the-art out of the SUMMA archives are relatively small.”<sup>88</sup>*

It is true that we also received communication from another former partner within this project, Kay Macquarrie from DW.<sup>89</sup>

*“Indeed, we continue to successfully use SUMMA results in two products: plain X - a media localization and transcription / subtitling / translation / voice-over platform run by DW and Priberam - and Monitio - a (large scale) media monitoring platform run by SUMMA Partner Priberam. Link to the Media localization plain X platform:*

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<sup>86</sup> SUMMA - Scalable Understanding of Multilingual Media,  
<https://www.bbc.co.uk/rdnewslabs/projects/summa#team>

<sup>87</sup> Sent: Monday, January 20, 2025 1:56 PM To: ugermann@ed.ac.uk <ugermann@ed.ac.uk>; peggy.van-der-kreeft@dw.com <peggy.van-der-kreeft@dw.com> Automated answer from Peggy van der Kreeft was “I am retiring from daily operations as of 1 January 2025. Please contact Hala Attig for technical plain X issues within DW, Mirko Lorenz for overall HLT management and Kay Macquarrie for Monitio, accessibility and HLT support and project. Additionally contacted: guntis@mii.lu.lv, "s.renals@ed.ac.uk, guntis.barzdins@lu.lv. In addition, we contacted former lead partner at institutes-admin@inf.ed.ac.uk

<sup>88</sup> Ulrich Germann Senior Computing Officer (Research) School of Informatics, University of Edinburgh,  
From: Ulrich Germann <ulrich.germann@ed.ac.uk> Sent: Monday, January 20, 2025 2:16 PM

<sup>89</sup> Kay Macquarrie<kay.macquarrie@dw.com, Sent: Tuesday, January 21, 2025 6:03 PM

<https://priberam.com/products/plainx/> (this is a corresponding blogpost about it [plain X: A Top-Notch, AI-Powered Content Adaptation Platform](#)) Link to the Monitio Media Monitoring platform: <https://priberam.com/monitio/> (corresponding DW blogpost the Monitio project (a SUMMA follow-up project): [Monitio: A Cutting-Edge Solution for Multilingual Media Monitoring and Analysis](#)).”

However, a link that was supposed to offer trial version did not work. There was for about two weeks no answer to our four repeated requests to provide follow up trustworthy evidence. Finally, communication was re-established, with some hesitation, also from Priberam company.<sup>90</sup> This time we were offered an opportunity to watch how Monitio works as well as immediate online consultation. When we demanded first to have a direct access to the Monitio platform (actually, as mentioned, a trial access was offered to general public but with no really active button), there was another communication silence.

It seems that this highly praised and expensive project (about six million eur) was just a failure.

The most recent (2020-2023) project **OPTED – Observatory for Political Texts in European Democracies** called for exploration of “*The new opportunities with regard to text analysis in digitalized democracies can be seized to the full extend by bringing together social scientists that control expertise with regard to the political processes and substantive issues.*”<sup>91</sup> However, the results, although supported with many deliverables,<sup>92</sup> and produced by 17 research institutions (10 research teams), seemed to be incomplete and unfinished from the perspective of practical usage. This is certainly true for prototype media monitoring tool.<sup>93</sup> Its has costly and time-consuming information gathering pipeline design. Apparently, testing phases, although reported in Deliverable 3.1 as involving a year long period, in fact included “semi-experts” and “students”. Although original promise was that “*Not only the properties are to be tested, but also the concept of an interlinked knowledge-graph database. This would shed a light on the feasibility of the classification criteria and also help to gauge the completeness of defined properties*”, in reality, this testing phase was not documented with any supporting evidence. Neither the key WP leader answered our repeated request for clarification.<sup>94</sup>

Moreover, the database is not user-friendly and transparent. For that purpose, we conducted three micro-experiments attempting to use its prototype media monitoring tool. One experiment with focus on data from Slovakia showed just a link to 2-3 websites (AS). Another one, for Hungary, showed no data, although actually WP3 report showed larger number of data. It turned out that these data for Hungary (and maybe some other countries) are available but not through advanced search tool (VVV). Finally, a general attempt ended with the experimentator report that he thinks that he needs to register first (JF). This is not to claim that these reportings or micro-experiments are correct – yet these experiences show that it is neither user-friendly tool, and by far not finished project.

The authors themselves acknowledged that “*Meteor shows over 1500 news sources from 17 countries, as well as over 300 organisations, and 17 full-text data archives. These are just the entries from an internal test period, and now we invite the community to add news sources, organisations, and data archives to Meteor*” (Balluff, Lind, Boomgaarden and

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<sup>90</sup> Afonso Mendes <amm@priberam.pt, 17.2.2025

<sup>91</sup> <https://opted.eu/about/>

<sup>92</sup> <https://opted.eu/results/project-reports/>

<sup>93</sup> [https://meteor.opted.eu/search?dgraph.type=NewsSource&countries=0x1e&countries=0x3b&topical\\_focus=media](https://meteor.opted.eu/search?dgraph.type=NewsSource&countries=0x1e&countries=0x3b&topical_focus=media)

<sup>94</sup> annie.waldherr@univie.ac.at, contacted on March 26, and 29, 2025.

Waldherr, 2023, n.p.).<sup>95</sup> In other words, there was an expectation that this project supported with 3 million eur funding would be somehow finalised based on common-wisdom and common-public/expert freelance effort.<sup>96</sup> As it could have been expected, and as it was confirmed, this expectation and call was not very successful.<sup>97</sup>

Therefore, it is certainly unrealistic to expect that “*OPTED will establish itself as a major resource for journalists and opinion makers, for students and interested academics, and for policymakers to turn to for systematic information about the state and dynamics of European democracies as evident by political texts. It will become the major hub for political text analysis in Europe and beyond*“, as it is claimed in the report Progress beyond the state of the art and expected potential impact so far.<sup>98</sup>

Additional earlier EU funded projects focused on automation of media monitoring tasks include EventRegistry (eventregistry.org), xLike (xlike.org), Bison (bisonproject.eu), NewsReader (newsreader-project.eu), MultiSensor (multisensorproject.eu), inEvent (inventproject.eu), and xLiMe project (xlime.eu).

One can find projects partially supported by European Commission, such as NOAM, an integrated platform for the monitoring and analysis of news media content (Flaounas, Ali , Turchi, Snowsill, Nicart, Bie and Cristianini, 2011).

There is no way to assess all these past projects – especially when it is impossible to get the final external assessment reportings, and there is often difficult cooperation with the authors.

Thus, follow up utilisation of previously funded projects and initiatives, should be, certainly among highly praised projects, included into post-research monitoring.

In view of the above discussed ultimately failures of EU funded research projects, and lack of progress at the EU institutional level, we turned our attention to private sector progress.

#### 4.4.2 Private Sector Online Media Monitoring Tools

As explained earlier, we used for comparison and ranking online ranking sites. Their overview is provided in the following table.

**Table 16: Overview of Online Review Sites**

| Review site        | Web link                                                            | Description                                                             |
|--------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------|
| <b>G2</b>          | <a href="http://www.g2.com">www.g2.com</a>                          | G2: Business Software and Services Reviews                              |
| <b>Trust Pilot</b> | <a href="http://www.trustpilot.com">www.trustpilot.com</a>          | Trustpilot Reviews: Experience the power of customer reviews            |
| <b>Capterra</b>    | <a href="http://www.capterra.com">www.capterra.com</a>              | Capterra: Find The Right Software and Services                          |
| <b>OMR Reviews</b> | <a href="https://omr.com/en/reviews">https://omr.com/en/reviews</a> | The most relevant SW information platform in the German-speaking market |

<sup>95</sup> Contact attempt was made through "paul.balluff@univie.ac.at" on March 26, 2025, requesting update on response of the call among the community.

<sup>96</sup> There was an attempt made to contact the project via info@opted.eu, on March 22, 2025, as well as via CORDIS information center at OP-CORDIS-HELPDESK@publications.europa.eu on March 26, 2025. However, no requested answer/explanation and/or the final evaluation report/evidence was provided.

<sup>97</sup> Email from paul.balluff@univie.ac.at, March 26, 2025.

<sup>98</sup> <https://cordis.europa.eu/project/id/951832/reporting>

|                    |                                                              |                                                 |
|--------------------|--------------------------------------------------------------|-------------------------------------------------|
| <b>Trustradius</b> | <a href="http://www.trustradius.com">www.trustradius.com</a> | Information and resources for technology buyers |
| <b>Slashdot</b>    | <a href="https://slashdot.org/">https://slashdot.org/</a>    | The internet's most trusted web data platform   |

Next, we made compilation of overall rankings by real users as presented in the following table. These results were then used for further more detailed analytical exploration of selected tools in follow up tables and commentaries.

**Table 17: Identification, Accessibility and Ranking of Media Monitoring Tools/Software on Review Sites**

| Review site<br>Media<br>Outputs<br>Monitoring System | G2   | Trust<br>Pilot | Capterra | OMR<br>Reviews | Trustradius | Slashdot | Comments                                  |
|------------------------------------------------------|------|----------------|----------|----------------|-------------|----------|-------------------------------------------|
| AlphaSense                                           | 4.7  | N.R.           | N.R.     | N.R.           | 9.5         | N.R.     |                                           |
| Semantrum                                            | 4.8  | C.F.           | C.F.     | C.F.           | C.F.        | N.R.     | A, B but different approach               |
| World Semantrum                                      | C.F. | C.F.           | C.F.     | C.F.           | C.F.        | C.F.     |                                           |
| Mention                                              | 4.3  | 2.8            | 4.7      | 3.3            | 9.4         | C.F.     |                                           |
| Critical Mention                                     | 4.3  | N.R.           | 4.3      | N.R.           | 7.1         | N.R.     | A, B, C                                   |
| eMedia Monitor                                       | 4.3  | 2.6            | C.F.     | C.F.           | N.R.        | N.R.     |                                           |
| Senti One                                            | 4.7  | 3.7            | C.F.     | C.F.           | C.F.        | C.F.     |                                           |
| Brand Analytics                                      | 4.9  | C.F.           | C.F.     | N.R.           | C.F.        | C.F.     |                                           |
| Semrush                                              | 4.5  | 3.7            | 4.7      | +              | 8.6         |          | (online visibility management)            |
| Dataminr                                             | 4.5  | N.R.           | 5        | N.R.           | N.R.        | N.R.     |                                           |
| Meltwater                                            | 5    | 1.9            | 4        | 4              | 7.0         | N.R.     |                                           |
| Muck Rack                                            | 4.6  | C.F.           | 4.3      | N.R.           | 6.8         | N.R.     |                                           |
| BrandVox                                             | 5    | 4.3            | 5        | C.F.           | N.R.        | C.F.     |                                           |
| SoMo Bot                                             | C.F. | C.F.           | C.F.     | C.F.           | C.F.        | C.F.     |                                           |
| YouScan                                              | 4.7  | 3.6            | 4.9      | N.R.           | N.R.        | C.F.     | A, B but different approach               |
| LOOQME                                               | 5    | N.R.           | 5        | C.F.           | N.R.        | C.F.     |                                           |
| SCAN Interfax                                        | C.F. | C.F.           | C.F.     | C.F.           | C.F.        | C.F.     |                                           |
| NewsData.io News API                                 | 4.5  | 3.4            | 4.7      | C.F.           | N.R.        | 4        |                                           |
| Webz.io                                              | 4.4  | N.R.           | 4.5      | C.F.           | N.R.        | C.F.     |                                           |
| News Exposure                                        | 4.9  | C.F.           | C.F.     | C.F.           | C.F.        | N.R.     |                                           |
| Daily Brief                                          | C.F. | C.F.           | C.F.     | C.F.           | C.F.        | C.F.     |                                           |
| Inshorts                                             | C.F. | C.F.           |          | C.F.           | C.F.        | C.F.     | (It's an app)                             |
| Notified PR Platform                                 | 4.4  | 3.6            | N.R.     | C.F.           | N.R.        | N.R.     |                                           |
| Vision IAS Current Affairs                           | C.F. | C.F.           | C.F.     | C.F.           | C.F.        | C.F.     |                                           |
| GDELT Project                                        | C.F. | C.F.           | C.F.     | C.F.           | C.F.        | C.F.     |                                           |
| Reputation                                           | 4.6  | 3.6            | 4.4      | N.R.           | C.F.        | C.F.     | (there are more tools with similar names) |
| Contify                                              | 4.5  | C.F.           | 4        | C.F.           | 8.9         | C.F.     |                                           |

| Review site<br>Media<br>Outputs<br>Monitoring System | G2   | Trust<br>Pilot | Capterra                   | OMR<br>Reviews | Trustradius                                    | Slashdot | Comments                                         |
|------------------------------------------------------|------|----------------|----------------------------|----------------|------------------------------------------------|----------|--------------------------------------------------|
| Factiva                                              | 4.2  | C.F.           | 4                          | C.F.           | 6.1                                            | N.R.     |                                                  |
| ManagrAI                                             | 4.8  | C.F.           | N.R.                       | C.F.           | C.F.                                           | C.F.     |                                                  |
| Brand24                                              | 4.6  | 2.9            | 4.7                        | 5              | 8.5                                            | N.R.     |                                                  |
| Mediaboard                                           | 4.9  | N.R.           | N.R.                       | C.F.           | C.F.                                           | C.F.     |                                                  |
| TVEyes                                               | 4.2  | N.R.           | 3.5                        | C.F.           | 10                                             | N.R.     |                                                  |
| Cision One                                           | 3.9  | N.R.           | Only Cision,<br>3.8        | C.F.           | Only Cision<br>Communication<br>s Cloud<br>6.9 | N.R.     |                                                  |
| Cision PR<br>Newswire                                | 3.9  |                | C.F.                       | C.F.           | C.F.                                           | C.F.     | There is separately<br>Cision and PR<br>Newswire |
| NewsWire                                             | 4.4  | 3.3            | 4.6                        | N.R.           | 8.3                                            | N.R.     |                                                  |
| Mentionlytics                                        | 4.9  | 3.7            | 4.7                        | C.F.           | N.R.                                           | N.R.     |                                                  |
| Agility PR<br>Solutions                              | 4.1  | N.R.           | C.F.                       | C.F.           | 9                                              | N.R.     |                                                  |
| Brandwatch<br>Consumer<br>Intelligence               | 4.4  | 2.3            | C.F.                       | C.F.           | 8.4                                            | 4 (?)    |                                                  |
| NewsWhip                                             | 4.6  | C.F.           | 5                          | C.F.           | N.R.                                           | C.F.     |                                                  |
| Ahrefs                                               | 4.5  | 1.9            | 4.7                        | 4.4            | 9.1                                            | 5        |                                                  |
| NewsMonitors                                         | C.F. | C.F.           | News<br>Monitor Suite<br>5 | C.F.           | N.R.                                           | 5        |                                                  |
| Newsworthy.ai                                        | N.R. | 3.7            | 5                          | C.F.           | C.F.                                           | 5        |                                                  |
| Awario                                               | 3.9  | 3.6            | 4.3                        | 3.5            | 8.7                                            | C.F.     |                                                  |
| Determ                                               | 4.7  | C.F.           | 4.4                        | N.R.           | C.F.                                           | C.F.     |                                                  |
| Newton Media                                         | C.F. | C.F.           | C.F.                       | C.F.           | C.F.                                           | C.F.     |                                                  |
| Event Registry/<br>Newsapi.ai                        | 4.3  | 4.7            | 5                          | C.F.           | N.R.                                           | N.R.     |                                                  |

Couldn't find = C.F., No review = N.R.

Many more tools or companies exist that have not been included into above discussed online ranking tools. Perhaps the most surprising is missing **Nexis Newsdesk™**, an all-in-one media analysis tool. It includes news archive and public records.

**Kinetiq** claims to capture all TV coverage with digital speed, performance, earned media, and owned media all unified in one platform.

For example, also **Diffbot** offers a range of products that can transform unstructured data across the internet into structured, contextual databases. It allegedly allows to parse billions upon billions of web pages each day. Diffbot Knowledge Graph product is allegedly the largest global contextual database, containing over 10 billion entities (including people, organizations, products, articles, and other entities). Knowledge Graph's link entities into contextual databases.

**TrendSpottr**, a cloud-based predictive analytics firm, identifies and predicts trend in real-time using big data streams such as Twitter and Facebook. TrendSpottr's service help in identifying emerging news, events and influencers with high viral potential.

**Attack Index** is an automated analytics service for assessing information resonance. It uses open data sources, artificial intelligence, number of patented algorithms. Includes tools for collecting and visualizing data. Attack Index uses open sources, monitoring databases and data sets from on-line media and social networks. Analysis can be obtained for any period up to 10 years.<sup>99</sup>

**SemanticForce** is the neuro-symbolic AI-powered omnichannel listening, advanced analytics and engagement platform. SemanticForce monitors 100K+ news sources in over 150 countries. SemanticForce's News Monitoring service gathers data from e-News, social networks, e-commerce, blogs, print, videos, job sites, TV, radio, podcasts, forums, review sites, apps stores, messenger tools, maps and more. The tool monitors not just articles and posts themselves, but also comments, shares, images (including logos), videos, events and chat. SemanticForce monitors and analyses comments sections on articles, enabling you to quickly and easily understand how people are reacting to a particular piece of news or coverage.<sup>100</sup>

**Google Trends** allows to see the topics people are—or aren't—following, practically in real time. Journalists can use this information to explore potential story ideas, and can also feature Trends data within news stories to illustrate a general level of interest in a political candidate, social issue or event. The Google Trends homepage ([google.com/trends](https://google.com/trends)) features clustered topics that Google detects are related and trending together on either Search, Google News, or YouTube. Trending Stories are collected based on Google's Knowledge Graph technology, which gathers search information from those three Google platforms to detect when stories are trending based on the relative spike in volume and the absolute volume of searches. The Featured insights at the top of the new Google Trends homepage are curated by News Lab to highlight additional data patterns or interesting trends.

**TextRazor** offers a complete cloud or self-hosted text analysis infrastructure. It combines state-of-the-art natural language processing techniques with a comprehensive knowledge base of real-life facts to help rapidly extract the value from documents, tweets or web pages.<sup>101</sup>

**Aylien** claims to be the leading news API to build intelligent applications, processes, and models with real-time access to enriched, tagged, and structured news content and data. It provides access to more than 90,000 trusted and vetted global content sources in real-time. There is ingestion and translation for content in five languages and promise for regional coverage from over 200 countries.<sup>102</sup>

Let us mention two examples of many partial research findings that suggest how this media monitoring field is developing.

Zavarrone, Grassia, Marino, Cataldo, Mazza, Canestrari (2020) provided an in-depth textual comparison among Italian and English newspapers through an interactive dashboard **CO.ME.T.A.** They argue that the dashboard allows to explore the information that mass media and social platforms convey. Moreover, the dashboard allows to explore the mining of contents extracted and study the lexical structure that links the main discussion topics. The tool works on merging four methods: text mining, sentiment analysis, textual network analysis and latent topic models.

Jain, Scott Keh, Chettri, Dewan, Izquierdo, Prussman, Shreshtha, Suarez, Ryan Shi, Li and Fang (2024) proposed **NewsSerow**, a method to automatically recognize environmental conservation content in low-resource languages. NewsSerow is a pipeline of summarization, in-context few-shot classification, and self-reflection using large language models (LLMs).

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<sup>99</sup> <https://attackindex.com/en/main-attackindex/>

<sup>100</sup> <https://semanticforce.ai/products/media-monitoring>

<sup>101</sup> <https://www.textrazor.com/about>

<sup>102</sup> <https://aylien.com/product/news-api>



NewsSerow allegedly significantly outperforms other few-shot methods and achieves comparable performance with models fully fine-tuned using thousands of examples. NewsSerow has also been deployed for countries with Spanish language.

Based on this overview, it seems that the most rational approach to assess whether a specific tool provides requested outputs, is just to test it in real conditions.

## 5. MEDIA MONITORING CAPABILITIES AND SCORES

Based on our basic categorisation done in previous part, we offer a more refined compilation and comparison of selected media monitoring tools. We naturally prioritised how well media monitoring tools monitor legacy media, split into broadcast media, print media and online media. The best results achieved are highlighted.

**Table 18: COMPARISON A - Media Channels**

|                                  | Category A1<br>BROADCAST<br>Media |        | Category A2<br>PRINT Media |        | Category A3<br>Online Media |        |                                                  |
|----------------------------------|-----------------------------------|--------|----------------------------|--------|-----------------------------|--------|--------------------------------------------------|
| Indicator/Tool                   | Score                             | NoR    | Score                      | NoR    | Score                       | NoR    | Comment/Contact                                  |
| Brand24                          | F.N.A.                            | N.A.   | N.A.                       | N.A.   | 9.1                         | 72     | help@brand24.com                                 |
| AlphaSense                       | F.N.A.                            | N.A.   | 7.4                        | 34     | 8.5                         | 36     | hello@alpha-sense.com                            |
| Semantrum                        | 9.3                               | 12     | 9.2                        | 11     | 9.9                         | 12     | sales@semantrumcom                               |
| Mention                          | 8.6                               | 14     | F.N.A.                     |        | 8.9                         | 15     | info@mention.com                                 |
| Critical Mention                 | 9                                 | 54     | 8.7                        | 46     | 8.8                         | 52     | website                                          |
| Senti One                        | N.E.D.                            | N.E.D. | N.E.D.                     | N.E.D. | N.E.D.                      | N.E.D. | Financed by the EU,<br>website for communication |
| Brand Analytics                  | N.E.D.                            | N.E.D. | N.E.D.                     | N.E.D. | 8.3                         | 8      | Russian company,<br>Website for communication    |
| Dataminr                         | 7.1                               | 7      | F.N.A.                     |        | 8.8                         | 8      | info@dataminr.com                                |
| Meltwater                        | 7.6                               | 456    | 7.3                        | 480    | 8.5                         | 547    | help@meltwater.com                               |
| Muck Rack                        | 7.1                               | 62     | 8.2                        | 93     | 9.1                         | 104    | hello@muckrack.com                               |
| BrandVox                         | N.E.D.                            | N.E.D. | N.E.D.                     | N.E.D. | N.E.D.                      | N.E.D. | sales@brandevox.net                              |
| YouScan                          | 7.7                               | 29     | 6.7                        | 29     | 9.5                         | 30     | info@youscan.io                                  |
| Brandwatch Consumer Intelligence | 6.9                               | 80     | 6.6                        | 78     | 8.6                         | 107    | uksupport@reputation.co                          |
| NewsWhip                         | F.N.A.                            | N.E.D. | F.N.O.                     | N.E.D. | 9.2                         | 44     | anand.kumar@contify.com                          |
| Ahrefs                           | F.N.A.                            | N.E.D. | F.N.O.                     | N.E.D. | 8.4                         | 30     | Website for communication                        |
| NewsMonitors                     | N.E.D.                            | N.E.D. | N.E.D.                     | N.E.D. | N.E.D.                      | N.E.D. | sk.podpora@mediaboard.com                        |
| Newsworthy.ai                    | N.E.D.                            | N.E.D. | N.E.D.                     | N.E.D. | N.E.D.                      | N.E.D. | hello@tveyes.com                                 |
| Determ                           | F.N.A.                            | N.E.D. | F.N.O.                     | N.E.D. | N.E.D.                      | N.E.D. | Website for communication                        |
| Event Registry/<br>Newsapi.ai    | N.E.D.                            | N.E.D. | N.E.D.                     | N.E.D. | N.E.D.                      | N.E.D. | helpdesk@mentionlytics.com                       |
| LOOQME                           | N.E.D.                            | N.E.D. | N.E.D.                     | N.E.D. | N.E.D.                      | N.E.D. | Website for communication                        |
| NewsData.io<br>News API          | N.E.D.                            | N.E.D. | N.E.D.                     | N.E.D. | N.E.D.                      | N.E.D. | hello@newswhip.com                               |
| Webz.io                          | N.E.D.                            | N.E.D. | N.E.D.                     | N.E.D. | N.E.D.                      | N.E.D. | support@ahrefs.com                               |
| News Exposure                    | N.E.D.                            | N.E.D. | N.E.D.                     | N.E.D. | N.E.D.                      | N.E.D. | support@news-monitors.com                        |
| Notified PR<br>Platform          | 7.2                               | 6      | 6                          | 7      | 8                           | 11     | support@newsworthy.ai                            |
| Reputation                       | N.E.D.                            | N.E.D. | N.E.D.                     | N.E.D. | N.E.D.                      | N.E.D. | Financed by the EU,<br>support@determ.com        |
| Contify                          | N.E.D.                            | N.E.D. | N.E.D.                     | N.E.D. | N.E.D.                      | N.E.D. | Offers online consultations                      |
| ManagrAI                         | F.N.A.                            | N.E.D. | F.N.A.                     | N.E.D. | N.E.D.                      | N.E.D. | sales@looqme.io                                  |
| Mediaboard                       | N.E.D.                            | N.E.D. | N.E.D.                     | N.E.D. | N.E.D.                      | N.E.D. | Website for communication                        |

|                      | Category A1<br>BROADCAST<br>Media |        | Category A2<br>PRINT Media |        | Category A3<br>Online Media |     |                                                                                              |
|----------------------|-----------------------------------|--------|----------------------------|--------|-----------------------------|-----|----------------------------------------------------------------------------------------------|
| Indicator/Tool       | Score                             | NoR    | Score                      | NoR    | Score                       | NoR | Comment/Contact                                                                              |
| <b>TVEyes</b>        | <b>8.9</b>                        | 605    | 4.3                        | 322    | 5.6                         | 366 | 3.5M+ daily news articles in 170+ languages going back to 2008.<br>website for communication |
| <b>NewsWire</b>      | N.E.D.                            | N.E.D. | <b>8.4</b>                 | 18     | <b>9.2</b>                  | 24  | Website for communication                                                                    |
| <b>Mentionlytics</b> | F.N.A.                            | N.E.D. | F.N.A.                     | N.E.D. | <b>9.2</b>                  | 20  | billing.support@notified.com                                                                 |

NoR – Number of Reviews, N.E.D - Not Enough Data, F.N.A. - Feature Not Available

**Category A1 BROADCAST Media:** **Semantrum** stands out with high score ratings of 9.3, followed closely by **Critical Mention** (9), **TVEyes** at 8.9, and **Mention** at 8.6, indicating they effectively meet user needs and expectations. In contrast, the lower rankings for YouScan (7.1), Notified PR Platform (7.2) and Meltwater (7.6) suggest that they may not provide as many broadcast media or as much user satisfaction within broadcasting domain as the top performers.

Furthermore, the number of reviews differs greatly between the tools, with TVEyes and Mention leading with 605 and 456 reviews respectively, which could indicate a larger user base and more reliable satisfaction level.

The availability of direct contact information for customer assistance across all platforms demonstrates a commitment to service.

**Category A2 PRINT Media:** Table indicates that **Semantrum** and **Critical Mention** perform well, with scores of 9.2 and 8.7, respectively, implying that they provide adequate capabilities for tracking print media coverage. One can perhaps add here **NewsWire** with 8.4 points and **Muck Rack** with 8.2 points.

Meltwater and YouScan, on the other hand, received lower scores of 7.3 and 6.7, respectively, which could be due to limitations in their capabilities or low customer satisfaction.

The absence of functionality and consequently of scores for Brand24, ManagrAI and Mention and some others tools suggests limited use in print media monitoring.

Some other media monitoring tools, such as NewsWire and Muck Rack can be put in the middle category.

However, Critical Mention has only 46 reviews, indicating relatively low customer engagement with the tool, while Semantrum has even less, only 11, suggesting limited visibility. This highlights the importance of feedback from users and improvement for lower-scoring tools.

**Category A3 Online Media:** Apparently, online media monitoring is preferred option and the most developed approach among our sample of monitoring tools. **TVEyes**, with very low score in this category, seems to follow its name and focus. In contrast, **Semantrum**, that performed above average in broadcast and print category, seems to excell in online monitoring, too. However, it has rather low number of reviews for assessment. Be that as it may, it seems that one can choose among many well-developed online media monitoring tools.

## SUMMARY

At first thought, it seems that for different media types specialised monitoring companies would be reasonable strategy to choose.

For broadcast media, **TVEyes** should be definitely included. Additionally, **Critical Mention** and **Mention** should be considered (in addition to other tools discussed separately such as **Mediaboard** since they were not included at all in software ranking tables).

For print media monitoring, as mentioned, **Semantrum** and **Critical Mention** perform well. One can perhaps add here **NewsWire** and **Muck Rack** for further selection consideration.

For online media monitoring, there is abundance of monitoring tools to choose from. One can think economically, ie to select those that already perform best in either broadcast media monitoring and print media monitoring (e.g. **Critical Mention** and perhaps **Semantrum**), or to prioritise apparently more specialised and/or better performing monitoring tools such as **YouScan**.

However, considering that there are probably a few hundred monitoring companies on the market globally, although mostly specialised in social media monitoring, our suggestions and this overview should be seen as the first step towards more comprehensive study about these tools.

Next, we focused on comparing geographic coverage of media monitoring tools. Ambition of the EU, but also by necessity, it should be to have at hand tools that can cover all the world.

**Table 19: COMPARISON B - Geographic Coverage**

| Indicator/Tool                          | Category B1<br>Local Media |        | Category B2<br>National Media |        | Category B3<br>International Media |        |
|-----------------------------------------|----------------------------|--------|-------------------------------|--------|------------------------------------|--------|
|                                         | Score                      | NoR    | Score                         | NoR    | Score                              | NoR    |
| <b>Brand24</b>                          | <b>8.3</b>                 | 67     | <b>8.7</b>                    | 68     | 8.9                                | 63     |
| <b>AlphaSense</b>                       | 6.2                        | 31     | 7.7                           | 35     | 7.6                                | 34     |
| <b>Semantrum</b>                        | <b>9.7</b>                 | 12     | <b>9.9</b>                    | 12     | <b>8.2</b>                         | 12     |
| <b>Mention</b>                          | <b>9</b>                   | 14     | <b>8.9</b>                    | 14     | <b>8.5</b>                         | 13     |
| <b>Critical Mention</b>                 | <b>9.1</b>                 | 55     | <b>9.2</b>                    | 49     | <b>8.4</b>                         | 29     |
| <b>Senti One</b>                        | N.E.D.                     | N.E.D. | N.E.D.                        | N.E.D. | N.E.D.                             | N.E.D. |
| <b>Brand Analytics</b>                  | <b>9</b>                   | 5      | <b>9</b>                      | 5      | N.E.D.                             |        |
| <b>Dataminr</b>                         | 7.9                        | 8      | <b>8.3</b>                    | 8      | 7.1                                | 7      |
| <b>Meltwater</b>                        | 7.7                        | 523    | <b>8.2</b>                    | 534    | 7.6                                | 467    |
| <b>Muck Rack</b>                        | <b>8.6</b>                 | 100    | <b>9.2</b>                    | 103    | 7.9                                | 82     |
| <b>BrandVox</b>                         | N.E.D.                     | N.E.D. | N.E.D.                        | N.E.D. | N.E.D.N.E.D.                       |        |
| <b>YouScan</b>                          | <b>9</b>                   | 30     | <b>9</b>                      | 29     | <b>8.7</b>                         | 29     |
| <b>Brandwatch Consumer Intelligence</b> | 7.8                        | 93     | <b>8.2</b>                    | 98     | <b>8.3</b>                         | 92     |
| <b>NewsWhip</b>                         | <b>8</b>                   | 44     | <b>8.9</b>                    | 43     | <b>8.5</b>                         | 42     |
| <b>Ahrefs</b>                           | <b>8.1</b>                 | 26     | 7.5                           | 25     | N.E.D.                             | N.E.D. |
| <b>NewsMonitors</b>                     | N.E.D.                     | N.E.D. | N.E.D.                        | N.E.D. | N.E.D.                             | N.E.D. |
| <b>Newsworthy.ai</b>                    | N.E.D.                     | N.E.D. | N.E.D.                        | N.E.D. | N.E.D.                             | N.E.D. |
| <b>Determ</b>                           | N.E.D.                     | N.E.D. | N.E.D.                        | N.E.D. | N.E.D.                             | N.E.D. |
| <b>Event Registry/Newsapi.ai</b>        | N.E.D.                     | N.E.D. | N.E.D.                        | N.E.D. | N.E.D.                             | N.E.D. |

|                      | Category B1<br>Local Media |        | Category B2<br>National Media |        | Category B3<br>International Media |        |
|----------------------|----------------------------|--------|-------------------------------|--------|------------------------------------|--------|
| Indicator/Tool       | Score                      | NoR    | Score                         | NoR    | Score                              | NoR    |
| LOOQME               | N.E.D.                     | N.E.D. | N.E.D.                        | N.E.D. | N.E.D.                             | N.E.D. |
| NewsData.io News API | N.E.D.                     | N.E.D. | N.E.D.                        | N.E.D. | N.E.D.                             | N.E.D. |
| Webz.io              | N.E.D.                     | N.E.D. | N.E.D.                        | N.E.D. | N.E.D.                             | N.E.D. |
| News Exposure        | N.E.D.                     | N.E.D. | N.E.D.                        | N.E.D. | N.E.D.                             | N.E.D. |
| Notified PR Platform | 8                          | 10     | 8.6                           | 11     | 7.6                                | 7      |
| Reputation           | N.E.D.                     | N.E.D. | N.E.D.                        | N.E.D. | N.E.D.                             | N.E.D. |
| Contify              | N.E.D.                     | N.E.D. | N.E.D.                        | N.E.D. | N.E.D.                             | N.E.D. |
| ManagrAI             | N.E.D.                     | N.E.D. | N.E.D.                        | N.E.D. | N.E.D.                             | N.E.D. |
| Mediaboard           | N.E.D.                     | N.E.D. | N.E.D.                        | N.E.D. | N.E.D.                             | N.E.D. |
| TVEyes               | 8.8                        | 576    | 8.4                           | 558    | 5.9                                | 354    |
| NewsWire             | 8.4                        | 22     | 8.6                           | 23     | 8.1                                | 16     |
| Mentionlytics        | 8.8                        | 17     | 9.2                           | 20     | 9.2                                | 19     |

NoR – Number of Reviews, N.E.D - Not Enough Data, F.N.A. - Feature Not Available

**Category B1 Local Media:** In local media monitoring, **Semantrum, Mention, Critical Mention, Senti One** and **Brand Analytics** excel (reaching 9 or above 9 point out of 10 maximum) in geographic coverage. Catching up are TVEyes, Mentionlytics and Muck Rack.

**Category B2 National Media:** In national media monitoring, **Semantrum, Critical Mention, Brand Analytics, Muck Rack** and **Mentionlytics** excel (reaching 9 or above 9 point out of 10 maximum) in geographic coverage.

**Category B3 International Media:** In international media monitoring, surprising leader is **Mentionlytics**. However, **Brand24**, and **YouScan** can be seen as doing well, (reaching almost 9 points out of 10 maximum) in geographic coverage. Mention, Critical Mention, NewsWhip and YouScan, are not too much behind. On the one hand, these differences are rather small. On the other hand, this may be one of the key indicators for FP monitoring.

Finally, we checked reporting qualities – both keyword targeting and custom feeds and alerts.

**Table 20: COMPARISON C – Reporting**

|                  | Category C1<br>Keyword Targeting |        | Category C2<br>Custom Feeds and Alerts |        |
|------------------|----------------------------------|--------|----------------------------------------|--------|
| Indicator/Tool   | Score                            | NoR    | Score                                  | NoR    |
| Brand24          | 8.7                              | 71     | 8.7                                    | 72     |
| AlphaSense       | 9.2                              | 40     | 9.2                                    | 40     |
| Semantrum        | 9.7                              | 12     | 9.6                                    | 12     |
| Mention          | 8.7                              | 15     | 8.2                                    | 15     |
| Critical Mention | 9.1                              | 53     | 8.9                                    | 49     |
| Senti One        | N.E.D.                           | N.E.D. | N.E.D.                                 | N.E.D. |
| Brand Analytics  | 9.3                              | 7      | 9.3                                    | 5      |
| Dataminr         | 9                                | 8      | 8.8                                    | 8      |
| Meltwater        | 8.2                              | 536    | 8.1                                    | 524    |

| Indicator/Tool                   | Category C1<br>Keyword Targeting |        | Category C2<br>Custom Feeds and Alerts |        |
|----------------------------------|----------------------------------|--------|----------------------------------------|--------|
|                                  | Score                            | NoR    | Score                                  | NoR    |
| Muck Rack                        | 8.5                              | 98     | 8.3                                    | 100    |
| BrandVox                         | N.E.D.                           | N.E.D. | N.E.D.                                 | N.E.D. |
| YouScan                          | 9.3                              | 31     | 9.1                                    | 30     |
| Brandwatch Consumer Intelligence | 8.5                              | 110    | 8.3                                    | 102    |
| NewsWhip                         | 8.6                              | 44     | 8.8                                    | 42     |
| Ahrefs                           | 7.7                              | 26     | 8.8                                    | 29     |
| NewsMonitors                     | N.E.D.                           | N.E.D. | N.E.D.                                 | N.E.D. |
| Newsworthy.ai                    | N.E.D.                           | N.E.D. | N.E.D.                                 | N.E.D. |
| Determ                           | N.E.D.                           | N.E.D. | N.E.D.                                 | N.E.D. |
| Event Registry/ Newsapi.ai       | N.E.D.                           | N.E.D. | N.E.D.                                 | N.E.D. |
| LOOQME                           | N.E.D.                           | N.E.D. | N.E.D.                                 | N.E.D. |
| NewsData.io News API             | N.E.D.                           | N.E.D. | N.E.D.                                 | N.E.D. |
| Webz.io                          | N.E.D.                           | N.E.D. | N.E.D.                                 | N.E.D. |
| News Exposure                    | N.E.D.                           | N.E.D. | N.E.D.                                 | N.E.D. |
| Notified PR Platform             | 8.7                              | 10     | 8.9                                    | 9      |
| Reputation                       | N.E.D.                           | N.E.D. | N.E.D.                                 | N.E.D. |
| Contify                          | N.E.D.                           | N.E.D. | N.E.D.                                 | N.E.D. |
| ManagrAI                         | N.E.D.                           | N.E.D. | N.E.D.                                 | N.E.D. |
| Mediaboard                       | N.E.D.                           | N.E.D. | N.E.D.                                 | N.E.D. |
| TVEyes                           | 7.8                              | 557    | 7.6                                    | 499    |
| NewsWire                         | 9.2                              | 20     | 9.1                                    | 16     |
| Mentionlytics                    | 8.9                              | 22     | 9.1                                    | 20     |

NoR – Number of Reviews, N.E.D - Not Enough Data, F.N.A. - Feature Not Available

As can be seen, the best performing in majority of indicators are **Semantrum, NewsWire, Critical Mention, YouScan**, followed by Brand Analytics and AlphaSense and Mentionlytics.

## Commentary

Scientific tools and objectively verifiable evidence of impending conflicts when using quantitative data do not exist (Matveeva, 2006, 7). One can argue that the same issue we face in conducting FPA. The best that can be achieved is a ‘good enough’ analysis. However, qualitative methods run the danger that they can potentially be influenced by a certain line of thinking, e.g. an exclusive focus on a particular issue, or a political ideology (Matveeva, 2006, 7). This issue can be perhaps solved with institutionalisation of the role of ‘devil’s advocate’ and advances in ML and AI, as well as with guaranteeing institutional and financial independence of an organisation. Regarding advances in AI and ML, this argument can be supported by findings such as by Modaresi, Gross, Sefidrodi, Eckhof and Conrad (2017) who found that providing the media analysts with automatically created summaries did not have a negative impact on the quality of the summaries they generated and no significant difference in quality could be observed if compared with outputs by the media analysts that had access to the full new articles.

Nonetheless, in addition to that help we still recommend to rely on human analysts.

Yet there is a long way ahead. Let us cite the most recent research focused on assessment of outputs produced by AI supported tools vis a vis journalists' assessment, and then on frame inference of news headlines with the help of AI. Most recent trends in sources utilisation include the use of AI. Study by Castillo-Campos, Varona-Aramburu & Becerra-Alonso (2024) explored the biases of AI tools, specifically in GPT-3.5, GPT-4, and Bing. It is suitable research to mention here since the performance of the tools was assessed by journalists specialized in breaking news and international affairs. The research revealed that the experts agreed 20.56% of the time with GPT-4, 17.22% with GPT-3.5, and 14.44% with Bing. GPT-4 was relatively more closely aligned to expert opinions and produced fewer opinative words. The research highlighted the extensive use of generative AI in media. The authors point that the challenge for journalists is to ensure accuracy of used outputs generated by AI.

For example, When “*Asked the same question to the interrogative headline “Could Russia’s aggression against Ukraine have been prevented?” (from El Mundo), Bing’s answer is ‘Impossible’, which is an opinionated response to the rhetorical question, not a summary of the headline or a keyword in the headline. Chat GPT generates ‘Prevention’ in both versions*” (Castillo-Campos, Varona-Aramburu & Becerra-Alonso, 2024, 108).

Using Natural Language Processing (NLP) with large language models (LLM), del Barrio and Gatica-Pérez, Daniel (2023) investigated two approaches for frame inference of news headlines: first with a GPT-3.5 fine-tuning approach, and second with GPT-3.5 prompt-engineering. They did not find very optimistic results either. Using fine-tuning of a number of language models, they found that GPT-3.5 produced classification accuracy of 72% on a six-frame classification task. This represented a modest 2% improvement over BERT-based models, but at a significantly larger environmental cost. They then presented a new way of classifying frames using prompts. At the headline level, inferences made with GPT-3.5 reached 49% of agreement with human-generated frame labels. In many cases, the GPT-3.5 model inferred frame types that were considered as valid choices by human annotators, and in a post-doc experiment, the human-machine agreement reached 76%. One can wonder whether this is sufficient level of agreement in, for example, so sensitive issue such as FP.

Finally, Waight, Messing, Shirikov, Roberts, Nagler, Greenfield, Brown, Aslett and Tucker (2025) explored the spread of ideas across text data. They argue that although there are many limitations, large language models offer a unique opportunity to measure quantities of interest that they call “narrative similarity”. Their approach is based on comparing the similarity of claims rather than of words, phrases, or sentences.

## 6. CONCLUSION

The study provides extensive but still incomplete overview of methodologies, sources, tools and projects used for monitoring news media outputs by scientific and commercial subjects.<sup>103</sup> In doing so, it examines these research and business experiences and enhances knowledge specifically targeting monitoring foreign policy discourses through news media. Both the researched and by research-targeted groups include journalists specialised in foreign/international affairs, foreign policy analysts, and diplomats, with the latter two groups to be discussed more deeply in follow up research. The report aimed to address gaps in understanding how foreign policy monitoring is conducted and how it can be improved, particularly in the context of the EU.

The research is exploratory, covering overlapping issues from journalism reporting and commenting on foreign affairs, to media content monitoring and foreign policy analysis, and prioritising broader overview instead of a narrow focus. This was found as justified research strategy in the view of scope of identified projects, tools and sources used for media monitoring. Moreover, it was found that there have been many projects, including some projects supported by the EU, that ended with questionable results (although self-declared, or assessed by external evaluators as being excellent) and with missing follow up utilisation. It was usually challenge to find out, or to understand why these projects usually failed, or at least did not have clear follow-up.

The research used multiple approaches, including academic database searches, online questionnaires, and analytical overviews of media monitoring tools. A survey was conducted among journalists from six (effectively five) EU Member States (Czechia, Denmark, Ireland, Hungary, Latvia, Slovakia) to understand their news selection criteria and sources with a specific focus on foreign policy and international affairs. Key factors influencing news selection include relevance, magnitude, and follow-up/expectation. Other factors like negativity, positivity, and surprise also play roles but are less consistently prioritized. However, these results may depend on the conditions of the country, local culture and profession. At the same time, these basic news selection and news values factors seem to be independent from media type and to a certain degree independent of changes in communication technologies and styles such as visual aspects and shareability of news on social networks.

The study highlights the challenges journalists face, such as access to sources, deadlines, and the influence of proprietors and advertisers. Among less researched challenges journalists face one can include their professional competences to evaluate and interpret often contradictory and incomplete information, usually under time pressure. In addition, these challenges include known unknowns, unknown knowns and unknown unknowns (examples are provided in the study).

The study also reviews past and current media outputs monitoring projects, focusing on their strengths, limitations, and potential for foreign policy monitoring. The analysis reviews various media monitoring projects and tools, both past and present, that use large datasets and big data for specific analysis. These past and current projects are either actor-oriented and episode-oriented, while our focus was at policy, and specifically foreign policy. Among these

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<sup>103</sup> The original plan and promise was to produce the report of about half of the current size.



not-policy specific projects, GDELT (Global Data on Events, Location, and Tone) is a prominent tool that monitors global news in multiple languages, but it faces criticism for data quality and data and algorithm lack of transparency.

- Other tools like ACLED (Armed Conflict Location & Event Data), ICEWS (Integrated Crisis Early Warning System), and SPEED (Social, Political, and Economic Event Database Project) are also discussed, each with its strengths and limitations.
- The study notes that many past projects, such as COPDAB and WEIS, have faced challenges with data accuracy and reliability, leading to their limited or no use in contemporary research.
- The study identifies several challenges in media monitoring, including perhaps too much the reliance on media reporting, the questionable representativeness/ full-scope of coverage and the difficulty of ensuring data accuracy and reliability. While useful, automated tools like GDELT and ICEWS often struggle with issues like ambiguous location names, the over-representation of certain regions, and the need for human oversight to ensure data quality.

The study specifies that while tools like GDELT, ACLED, and ICEWS may have the potential for foreign policy monitoring based on big data, they require significant improvements in data quality, transparency, and methodological rigor.

Additional list of potential tools includes UTD Event Data (the Open Event Data Alliance's Phoenix database), the Global Consensus Toolkit, and the Social, Political and Economic Event Database Project (SPEED) (allegedly, it is in its final development stage).

Methodology behind, and results stemming from the Comparative Research on the Events of Nations (CREON) Project: Foreign Policy Events, 1959-1968, as well as that of the FAST Analytical Framework, could be re-examined, too. From GED 21.1, it might be worth to explore used concept of uncertainty management.

There were some recent attempts (2020-2023) at the EU level (OPTED Meteor) that can serve as an inspiration (be that negative or positive) for developing a more comprehensive and at the same time specialised media content monitoring tool for foreign policy related sources or for high quality relevant journalistic outputs tackling foreign policy issues.

The study suggests some best performing monitoring tools among many private monitoring tools that focus exclusively or as part of their work on legacy media. These include Semantrum, Critical Mention, YouScan and Mention. For broadcast media, it is TVEyes. From the perspective of geographical coverage, surprising leader is Mentionlytics. However, this is not to say that one can not find another, maybe equally well-performing media monitoring tools.

Alternatively, the report suggests that future research should focus on developing more reliable and comprehensive tools for monitoring foreign policy discourses, particularly in the context of emerging global challenges like conflicts and geopolitical tensions. Before doing that, in depth analysis of previous failures in this research area should be conducted.

The study recommends, reflecting on rapidly changing paradigm shift in international relations, expanding media monitoring and analytical efforts (with significant human, AI and

ML involvements, including LRMs), particularly in Europe, to provide better insights into foreign policy developments. In particular, overview of private media monitoring tools that erupted in the last decades, many of them with ML and AI support (but, to our knowledge, none with LRMs), calls for possible cooperation between public and private sectors. Private sector seems to be more dynamic and open to change and innovation than public sector, while academia seems to be lacking long-term single item research focus in this area, or long-term cooperation in different but connected fields of research such as foreign policy media monitoring,

The report also suggests increasing, or at least establishing interactions between journalists, analysts, and diplomats to improve the quality of foreign policy monitoring and analysis in countries where this is not a feature of policy-making. It should be noted that our attempt at contacting over 30 European institutes and departments of international relations with search for possible partners and experts for both providing feedback and to continue in follow up research in this niche area, ended with very low feedback in February 2025. We received answers from the Institute for Security and International Studies (ISIS), Sofia, Bulgaria, from the Stockholm International Peace Research Institute, Stockholm, Sweden as well as from the European Union Institute for Security Studies, Brussels, Belgium.<sup>104</sup> However, neither of these three institutes indicated availability of experts in this area. This suggests that this important area is virtually without sufficient research attention and research coordination.

The Dutch The Hague Centre for Strategic Studies that seemed to be the most specialised in using large data sets in FP analysis recently (check Tables 13 and 14), did not respond to our query.

The research paper underscores the importance of understanding the methodologies, sources and tools used in media monitoring for foreign policy analysis. It highlights the need for more reliable and transparent tools and sources to ensure accurate and actionable insights into global political developments. The study points at a lack of knowledge about progress made in authoritarian and other states in this important field.

Additional drawback of this study is omission of knowledge published in books, and, with some exceptions, in non-English sources.

On the positive side, the report indicates additional older but potentially still useful sources that should be explored in the further follow-up study, e.g. Weisi, Gleditsch & Wilson, 2018, Schneider, Gleditsch and Carey, 2011, Kremer, Mansour and Perry, 2014 and Friedman *et al*, 2018.<sup>105</sup>

An important challenge for further work includes copyright issues. For example, more than a decade ago, Meltwater, which uses a software algorithm to scrape online news and deliver excerpts to clients, lost two key cases internationally (Hill, 2013). The case decided that headlines and extracts of newspaper articles can be a freestanding original work in terms of the copyright act (Grassie, 2011).

Overall, the document provides a broad review of the methodologies, sources, tools and projects used for monitoring events and actors through news media, highlighting both the

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<sup>105</sup> All fully cited in the text, not in the Sources.

potential and limitations of current approaches. It calls for improved tools and methodologies to understand better and respond adequately to global political events. Ultimately, it questions validity and reliability of automated approaches to foreign policy analysis. Instead, ultimately it suggests to combine semi-automated AI/ML supported approach with involvement of well-trained researchers and intelligence-type analysts from all countries of the globe (either locals or migrants, diaspora, or so called global nomads). These intelligence-type analysts should be trained based on a common analytical protocol to be developed centrally. In fact, already their selection should follow suggestions provided by Kahneman, Sibony and Sunstein (2021/2024) in chapter 21 of their book. The role of analysts would be just to monitor emerging changes in foreign policy (thus not military coups, revolutions, mass protests, etc).

Full specific policy relevant recommendations are discussed in a separate section at the beginning of this report.

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