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Beyond "Emergencies?" Reporting on Humanitarian Issues Around the World

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ABSTRACT

How do journalists around the world report on humanitarian issues? Two decades after Calhoun first wrote about the "emergency imaginary", it is still seen as a "master frame", dominating narratives about humanitarian action in news and aid work alike. But no one has previously tested the extent to which the emergency imaginary dominates journalism about humanitarian issues within a largescale, systematic study. Using an innovative combination of manual and computational approaches, we analyse a global corpus of over a million media texts, disseminated between 2010–2020. This specially constructed dataset included 582 sources of broadcast, print and online media in 92 countries. We found that the emergency imaginary did dominate reporting in most Anglophone countries. But it did not seem to dominate the coverage of humanitarian issues world-wide. Instead, journalism elsewhere tended to use hybrid interpretative frames: blending aspects of the emergency imaginary with other kinds of discourse. However, in most of the countries we analysed, online journalism had a closer relationship to the emergency imaginary than non-digital content. Based on an analysis of document similarity, we suggest that this may be influenced by their dependence on copy from three wire agencies, Associated Press, Agence France Presse, and Thomson Reuters.

KEYWORDS

Humanitarian; emergencies; global; corpus analysis; a la carte word embedding: principal component analysis

To what extent do journalists frame their coverage of humanitarian affairs in terms of "emergencies"? How does reporting on humanitarian issues vary around the world? And how much does online journalism differ from other media?

Two decades after Craig Calhoun started writing about the emergency imaginary (2004), it is still viewed as the "master frame" of humanitarian communication, spreading from the "West" to shape how the international community conceptualises and organises responses to suffering (Saez and Bryant 2023, 20). Calhoun claimed that this hegemonic frame was collectively reproduced by journalists and aid-workers (Calhoun 2004, 2008, 2010). So, the emergency imaginary is regularly used to critique media coverage of wars, mass displacement, and extreme environmental events (Irom et al. 2022; Lawson 2020), as well as humanitarian policy and practice (Saez and Bryant 2023).

However, assumptions about the continued dominance of the emergency imaginary are questionable for several reasons. First, when Calhoun began writing about this

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model back in 2004, the media environment operated very differently. Online news was just emerging, and Anglo-American organisations dominated the global media landscape (Thussu 2006). So, Calhoun situated "emergency" reporting in relation to "Western" newspapers, magazines, and domestic TV news (Calhoun 2004, 2010). However, some of the most frequent providers of humanitarian news are now influential online outlets and major news organisations situated outside of "the West" (Scott, Bunce, and Wright 2018).

The second reason why we should question the ongoing dominance of Calhoun's model is that aid agencies' communication strategies are changing. This shift is grounded in a growing distrust of metanarratives, including ethnocentric representations of passive victims and Western saviours (Chouliaraki 2013). Aid agencies now tend to use several different narrative frames even within the same campaign (Ongenaert, Joye, and Machin 2023; Seu and Orgad 2017).

Third, claims about the international dominance of the emergency imaginary within humanitarian reporting have never been tested *via* a large-scale, empirical study (Scott, Wright, and Bunce 2021). Calhoun's own work was theoretical, and subsequent researchers have explored his model in relation to limited samples of news coverage, risking confirmation bias (Scott, Wright, and Bunce 2021).

However, the recent proliferation of computational methods has made it easier to compare the distribution of a single interpretative frame across multiple, large, international corpora (Hopp et al. 2019; Madrid-Morales 2021). This study takes advantage of these methodological advances to analyse a specially constructed global corpus of 1,116,946 Anglophone media texts, which include the word "humanitarian*," from 582 sources in 92 countries. The corpus spans more than ten years, from the beginning of 2010, when Calhoun published his most widely cited work on the emergency imaginary, until August 2020, which marked the end of the largest emergency appeal for COVID19.

To set up our analysis of this corpus, the article begins by introducing readers to the emergency imaginary and relevant research on humanitarian communications. We then discuss our methods, explaining our innovative blend of computational, quantitative and qualitative approaches. In the first three findings' sections, we analyse how and how much the emergency imaginary was reproduced within the reporting on humanitarian issues disseminated by different countries. Finally, in the fourth findings section, we analyse the extent to which the online coverage of humanitarian issues differed from print and broadcast output.

In so doing, we have produced the first large-scale, international study about the existence and distribution of the emergency imaginary. This study also advances efforts in communication studies that seek to combine large-scale computational methods with manual, qualitative approaches to the analysis of media texts (Walter and Ophir 2019).

Literature Review

Introducing the "Emergency Imaginary"

The word "humanitarian" is notoriously multivalent, informed by varying philosophical traditions, historical trajectories, and socio-economic structures around the world (Overseas Development Institute, n.d.). Yet Calhoun (2004, 2008, 2010) claimed that

a single interpretative frame, which he called the "emergency imaginary," had become dominant globally. Frustratingly, Calhoun does not explicitly situate "the emergency imaginary" (Calhoun 2004, 2008, 2010) in relation to any specific strand of framing theory. However, he appears to draw from Entman's classic work (Entman 1993) as he describes this frame as defining the problem, its causes, and the recommended treatment, as well as relevant normative judgements.

Subsequent critics have also drawn parallels between "the emergency imaginary" and episodic framing, involving personalized, individual case studies and discrete events (Iyengar 1991, discussed in Irom et al. 2022). This contrasts with "thematic framing", involving more abstract thinking about broader contexts, longitudinal trends, and complex causes (Iyengar 1991). However, Calhoun's "emergency imaginary" also has other discursive features, relating to particular people and their relative powers, resources, and responsibilities towards one another.

Specifically, Calhoun's emergency imaginary involves conceptualising the problem as a single event, often described as a humanitarian crisis or disaster. This event is portrayed as a time-limited peak of human suffering involving very high mortality rates, experienced by a particular group in a specific geographic location. Yet the underlying structures, processes, and inequalities causing such suffering are not explored. Instead, such events are treated as sudden and unpredictable exceptions to a usually functional, benevolent world order, and "quick action is needed to compensate" (Calhoun 2004, 276).

In addition, the treatment recommended within the emergency imaginary involves giving money to fund international aid agencies, whose swift intervention will save those whose lives are in danger. The obligation to help "the distant stranger" (Calhoun 2008, 74) is constructed *via* moral equivalence: a normative approach that treats each individual human as equally deserving of care and assistance from others (Calhoun 2008, 78). Thus, although the emergency imaginary evokes a caring, inter-connected global public, it tends to de-politicise suffering and efforts to relieve it.

Calhoun argued that the emergency imaginary arose from notions of charity, grounded in European imperialism, and reproduced *via* the emotive fundraising appeals run by Western aid agencies and the UN's Office for the Coordination of Humanitarian Affairs (Calhoun 2004, 2008). Moreover, Calhoun asserted that the emergency imaginary was "circulated" and "reinforced" by journalists through newspapers, magazines and TV news (Calhoun 2010). Nevertheless, Calhoun had remarkably little to say about journalism itself: stating only that the emergency imaginary suited the immediacy and intense visuality of news, especially TV (Calhoun 2008, 2010).

"Emergency" Reporting, Aid-Work, and Journalism

Communications scholars have since explored the textual features of "emergency" news reporting in detail (Scott, Bunce, and Wright 2022). Such work analyses the spatiotemporal specificity of the humanitarian crisis (Chouliaraki 2006), the use of statistics to indicate its grand scale (Lawson 2020), and depoliticised representations of innocent and powerless victims, chiefly women and children (Ticktin 2016). Meanwhile, the intervention of international aid agencies is often articulated as a

heroic "morality play," or an urgent race against time to save as many as possible from dying (Scott, Wright, and Bunce 2021, 206).

Other research explores the relationship between journalists and aid-workers within news production. This relationship is structured *via* numerous agreements with international aid agencies, which oblige national broadcasters to air fundraising appeals during designated "emergencies"—although broadcasters also tend to give the "emergency" additional news coverage as well (Scott, Wright, and Bunce 2021). The first agreement was between the UK's Disasters Emergency Committee (DEC) and the BBC, although it now includes other UK-based national and international broadcasters (Franks 2014). The DEC then initiated the creation of the international Emergency Appeals Alliance, consisting of similar umbrella organisations, most of which are based in Europe and North America[1]. Until recently, these organisations tended to follow the DEC's lead, regarding the timing and wording of joint appeals with national broadcasters (Scott, Wright, and Bunce 2021).

Franks (2008) claimed that these agreements had led to journalists' "trusting" aid agencies too much, causing them to uncritically integrate the narrative frames and media content produced by aid-workers within news output. There is certainly ample evidence of journalists routinely using aid agencies' content to save time and money (e.g., Powers 2018; Wright 2018). But the extent to which such practices reproduce the emergency imaginary is unclear because they involve complex negotiations between journalists, aid-workers, and social media participants (e.g., Cooper 2018; Moon 2018).

A second factor that could have played a role in spreading the emergency imaginary internationally involves journalists' reliance on copy from the major wire agencies: Agence France-Presse (AFP), Associated Press (AP) and Thomson Reuters (RTR) (Scott, Wright, and Bunce 2021). These agencies are based in France, the US, and UK respectively, and are some of the most prolific providers of humanitarian news in the world (Scott, Bunce, and Wright 2018). In a rare international and multilingual study, Kwak and An (2014) found that the most important factor determining whether "disasters" were covered by news outlets in 2013–2014, was whether one of these major wire agencies had reported on it.

Journalists' reliance on wire agency copy is particularly important because these agencies privilege "breaking 'spot news'…rather than exploration of [longer-term processes] such as climate change, or more structural issues" (Scott, Wright, and Bunce 2021, 2018). But since Kwak and An (2014) did their study, there has been a rapid expansion of other wire agencies, including the Chinese wire agency, Xinhua, the Turkish agency, Anadolu, and the Russian agencies, Interfax and ITAR-TASS (Thussu 2022). Indeed, by 2018, Xinhua was amongst the most frequent providers of humanitarian news in the world (Scott, Bunce, and Wright 2018).

Online journalism is believed to be highly likely to use content produced by wire agencies (Boumans et al. 2018; Saridou et al. 2017) and aid agencies (Wright 2018) because of the intense time and budgetary constraints they face, as well as the pressure to update websites. However, some specialist, online outlets produce more critical, nuanced and thematic "humanitarian journalism" (Scott, Bunce, and Wright 2022). Such digital outlets tend to be small and precariously funded, but they are frequently monitored by other journalists, so have the capacity to influence more mainstream outlets (Scott, Bunce, and Wright 2022).

The Need for More "non-Western" Research

Other challenges to the emergency imaginary may yet be uncovered, as most research on humanitarian communication has concentrated on journalism produced in "Western" countries, especially the US and UK. Domestic coverage of humanitarian issues in majority world countries is especially rarely studied. Those studies that do exist tend to focus on TV and encourage researchers to move away from Calhoun's narrow focus on news: stressing the significance of current affairs, which has a longer format, so has greater potential for thematic reporting (Ong 2015; Xu and Zhang 2023). Such studies also suggest the need to be alert to potential hybridity. For example, Xu and Zhang (2023) argue that the "humanitarian" documentaries circulated by Chinese TV combine elements of the emergency imaginary—such as close-up images of innocent women and children—with anti-imperialist narratives about the failures of "the West."

More research has been done on humanitarian reporting by international news networks funded by authoritarian states, which tends to be analysed as mediated diplomacy. This body of work includes Yeşil's study of the "humanitarian perspective" (Yeşil 2024, 33) advanced by Turkish international media, including print and online journalism, satellite and domestic TV, and the Anadolu wire agency. These outlets, she argues, portray Turkey as giving generously to assist oppressed Muslims worldwide, whilst critiquing the hypocrisy of Western powers and aid agencies.

However, Al Jazeera English (AJE), which is part-funded by Qatar, was the first to claim to give "voice to the voiceless", as well as holding state and non-state actors to account for causing their suffering (Figenschou 2011). AJE's approach has been described as involving a rights-based approach to humanitarianism (Bailliet 2013), including giving early warnings of impending humanitarian crises so that they can be averted (Ghanem 2020). AJE also covers long-term trends in its TV news, documentaries and online journalism, including immigration and refugee flows (Bennett and Zamith 2013). Such "humanitarian" coverage involves balancing the case studies of individuals with a thematic discussion of "systemic and structural factors" (Bennett and Zamith 2013, 133). However, even AJE executives admit that the network relies heavily on coalitions of Western aid agencies to produce this coverage (Ghanem 2020).

Finally, international media funded by China is widely regarded as challenging the emergency imaginary by privileging positive or solutions-oriented representations of target non-Western countries. This is particularly noticeable in the coverage of sub-Saharan Africa provided by the Chinese wire agency, Xinhua, and the China Global Television Network (CGTN, formerly known as CCTV) (Madrid-Morales 2017; Marsh 2023; Umejei 2018). For example, CCTV current affairs talk-shows represented the Ebola pandemic by focusing on success stories, discussed using local experts in the context of China's partnership within South-to-South development (Li 2017). Whilst a rare article focusing on online output (Madrid-Morales 2019), found that when Xinhua and CGTN sites covered armed conflict in Africa, they reduced negativity by positioning words about fighting close to the word "humanitarian", as well as "help", "peace" and "support."

Thus, as we have shown in this literature review, there are several factors that may have spread the emergency imaginary internationally. But there are also several factors that may challenge or hybridise it that we need to know more about. Given journalists'

greater reliance on aid agency material and wire copy in online news, as well as the emergence of specialist, online humanitarian news outlets, it seems appropriate to compare different media, as well as different countries. For these reasons, we ask three research questions:

RQ1: To what extent do journalists frame their coverage of humanitarian affairs in terms of "emergencies"?

RQ2: How does reporting on humanitarian issues vary around the world?

RQ3: How much does online journalism differ from legacy media?

Methods

To address these research questions, we used an innovative blend of quantitative and qualitative methods to conduct textual analysis. In so doing, we contribute to a growing body of work that extends the capabilities of automated approaches to text classification by combining them with manual analyses (e.g., Meier-Vieracker 2024; Brookes and McEnery 2019)—thus, toggling between "close and distant readings of texts" (Cornell and Mohr 2020). Our methodological approach involved five stages (see Figure 1), which we will discuss in turn. For more details, the reader may refer to the replication materials available on our DataShare site[2].

Stage 1: Corpus Building

We began by building a unique corpus of English-language media content mentioning the word "humanitarian*" at least once. First, we constructed a database of Anglophone media outlets around the world. We selected 92 countries from five continents using a combination of purposive and convenience sampling. In building our sample of countries, we sought to have sufficient geographic diversity but were constrained by the availability of Anglophone content.

Our emphasis on the English language is not unproblematic. Anglophone news produced by non-Anglophone countries tends to be targeted at international

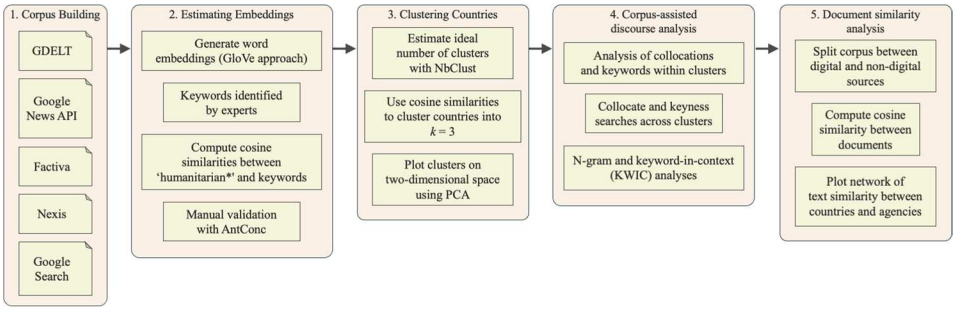

Figure 1. Research design and workflow.

audiences and domestic elites, so is often framed differently from national news in a country's primary language. Some computational techniques enable the use of a multilingual corpus (Chan et al. 2020), but translational accuracy still varies significantly between languages (Wright and Terras, under review): an issue likely to be greatly exacerbated by the multivalence of the word "humanitarian*." For these reasons, we decided that, on balance, it was better to use a monolingual corpus.

Our database included 582 news and current affairs outlets from online, broadcast, and print media, including "mainstream" and niche sources. To select outlets, two inclusion criteria were used: a) the geographic reach of the media organisation should be global, regional, or national and b) content should be published in English regularly. In countries with over 20 media outlets meeting the first two criteria, we only retained those with at least 100 stories mentioning the word "humanitarian*."

We used this database of media organisations to search for texts from five sources: two full-text databases (Nexis and Factiva) and two repositories of web news content accessible through an Application Program Interface or API (GDELT and Google News), as well as using a combination of complex searches on Google's search engine, and different scraping techniques[3]. Full details of the methods used in corpus construction, and our archived dataset are hosted on our DataShare site[4].

We retrieved all articles published between January 1, 2010, and August 15, 2020, and removed duplicates.[5] As shown in Figure 2, a large proportion of content came from the UK ($n = 205{,}194$), followed by the USA ($n = 122{,}332$). For some countries, our corpus only included a few hundred media items (e.g., Brazil, $n = 301$ or Barbados, $n = 698$). The number of media items retrieved per country is represented in Figure 2. Because of the small size of these sub-corpora, we removed countries with fewer than 1,000 articles from our sample before moving to the next stage of analysis. Our final corpus at this point was 1,116,946 media items from 582 media outlets in 92 countries.

Stage 2: Word Embeddings

To understand how reporting on "humanitarian" issues related to the emergency imaginary, we trained a word-embedding layer using the GloVe approach (Pennington, Socher, and Manning 2014). Word embeddings are distributional representations (vectors) of words. Within a given embedding, a single word used in specific contexts will be represented by a series of floating-point numbers, close in vector space to other words that tend to be used in similar contexts. Word embeddings can therefore be used to measure the relationship between multiple dimensions of a conceptual model in a large corpus (Kozlowski et al., 2019).

To train our embedding layer, we used a window size of six words and estimated word vectors of dimension 300. We retained only words that appeared with a minimum frequency of 1,000 in our corpus when training the embedding layer. The use of word embeddings and other approaches based on distributional representations of language is increasing in communication studies (Kroon, Trilling, and Raats 2021; Meier-Vieracker 2024), as they allow researchers to explore the use of words in context at scale.

In parallel, we identified keywords associated with several dimensions of Calhoun's emergency imaginary. These were: the definition of the problem; the imperative to

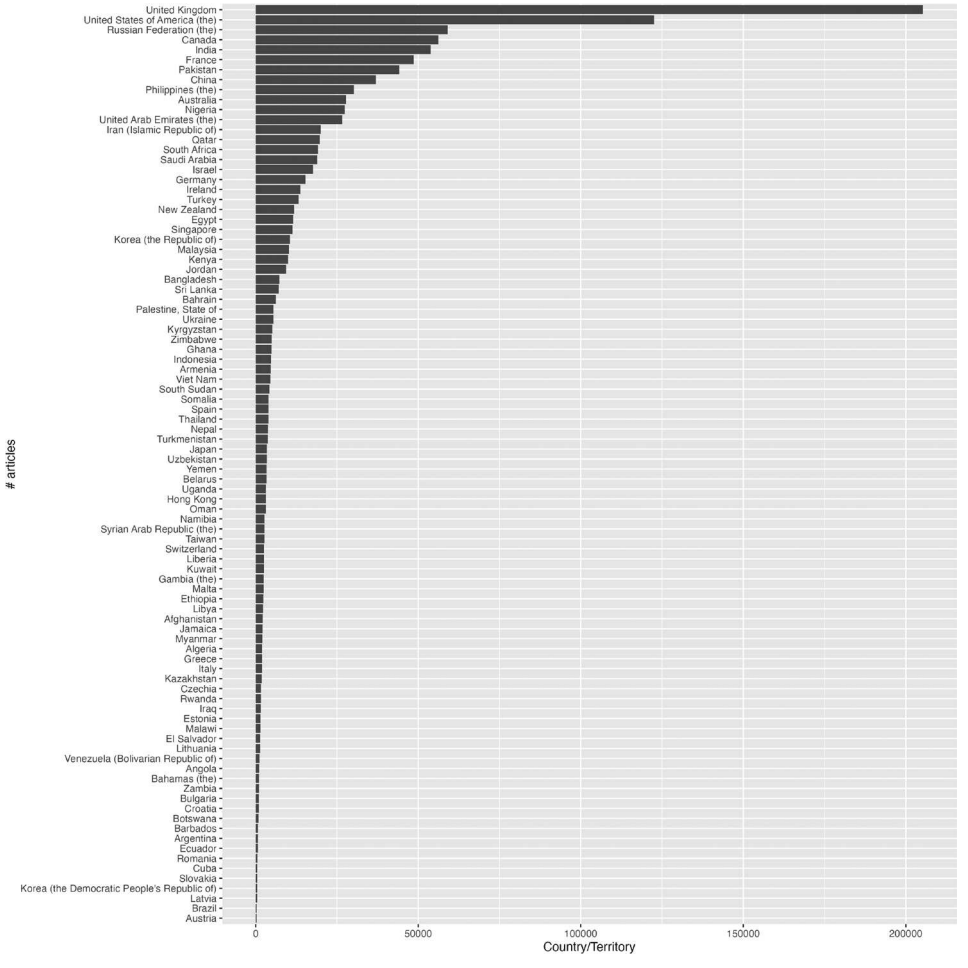

Figure 2. Number of news items per country.

act swiftly; and recommended treatments or solutions. Other aspects of the frame, and related discursive characteristics, were explored later, using manual techniques when this was more likely to be accurate.

To identify suitable keywords, the lead author conducted a content analysis of Calhoun's own work on the emergency imaginary. Next, we approached five experts, who have published extensively on humanitarian communication (Lilie Chouliaraki, Glenda Cooper, Simon Cottle, Jonathan Corpus Ong, and Matthew Powers). We asked these scholars to select and rank the words from each list that they thought were most relevant for each dimension of the emergency imaginary[6]. Our domain experts were based in the UK and USA, given the strong association of the emergency imaginary with these countries, but none were previous co-authors, and most have researched contexts other than the UK and the USA. The keywords chosen by the panel in relation to each dimension were:

- The problem: "crisis", "disaster"

- The imperative to act swiftly: "now", "sudden", "urgent".
- Recommended treatment: "help", "rescue", "save".

These keywords were then used to generate country-level estimates of closeness between the word "humanitarian*" and the different dimensions of the emergency imaginary. For each dimension, we computed how "close" (measured in cosine similarity) the keywords were to the word "humanitarian*." Our approach follows the a la carte (ALC) embedding logic first discussed in Arora et al. (2018) and Khodak et al. (2018). More specifically, we relied on the conText package for R that offers a "fast and simple method [to produce] valid vector representations of how words are used—and thus what words 'mean'—in different contexts" (Rodriguez, Spirling, and Stewart 2023, 1255)[7].

At the end of this process, for each country and for each keyword, we had an average distance value. For example, the value for the word "help" in the UK and the USA was 0.228, while in Russia and Ecuador was 0.207. From this, we inferred that the meaning given to the word in the UK and USA was likely more similar than the meaning given to it in Russia and Ecuador. We validated these findings manually by running collocation searches between keywords across countries with high levels of similarity and dissimilarity, aided by the corpus analysis software, *AntConc* (Bednarek and Carr 2021),

Stage 3: K-Means Clustering

Using the average cosine similarities for each of the eight keywords as data points, we then used a k-means clustering algorithm to group countries in our dataset. This approach ensured that countries would be clustered in ways that related to the emergency imaginary, rather than other shared words. We excluded from analysis countries for which we had fewer than 10,000 media items, leaving us with 910,039 items from 279 sources in 25 countries.

K-means clustering is a form of unsupervised machine learning (Bouchart 2020) that requires researchers to identify the number of clusters (*k*) into which they want to organize units. To identify the ideal number of clusters, we used the R package NbClust, which includes 30 indices for determining the size of k. Most indices returned 3 as the best number of clusters.

The three clusters of countries were then plotted visually in a 2-dimensional space using a form of Principal Component Analysis (see Figure 3) using R's factoextra package. We repeated the same process to generate Figure 4, in which we differentiate between digital and non-digital media in each country. Thus, in layman's terms, we created a kind of international "map," grouping together countries whose media coverage was significantly different to other groups, and which were likely to have similar relationships to the emergency imaginary.

Those unfamiliar with this method should be aware that the axes on such a diagram do not refer to specific variables. Instead, smaller clusters indicate greater linguistic coherence and vice versa. Previous studies have used similar processes to identify clusters of frames within large corpora of news texts (e.g., Burscher, Vliegenthart,

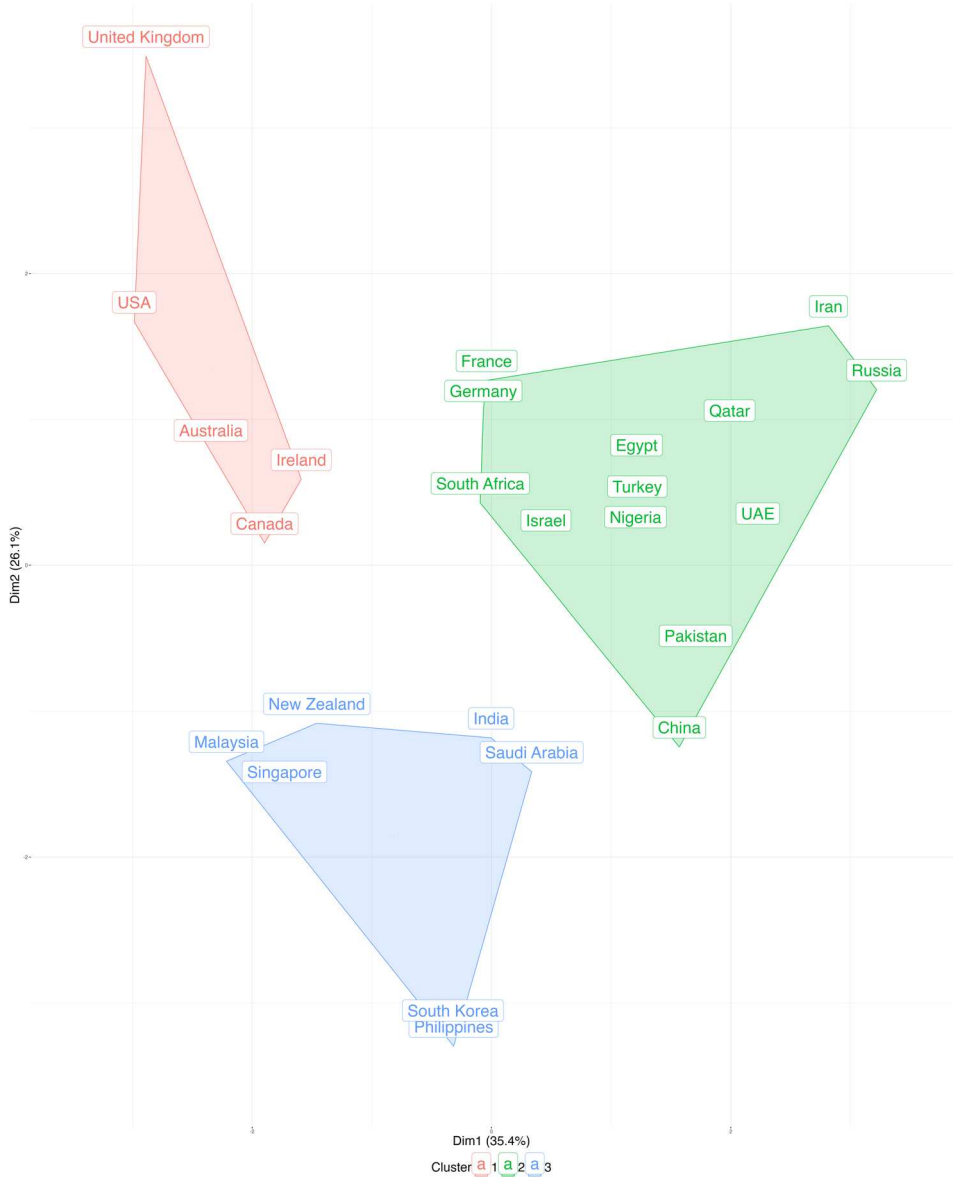

Figure 3. Cluster of countries based on the similarity in use of "emergency imaginary" keywords.

and Vreese 2016; Nicholls and Culpepper 2021). But as far as we are aware, we are the first to use cosine similarities extracted from an ALC embedding as the starting point.

Importantly, we utilise the analyses outlined in Stages 2 and 3 for initial inductive exploration. We do not make claims relating to the statistical significance of between-country differences. Instead, we use it as a first step in the bottom-up discovery of common patterns in language usage between countries. This allows us to conduct more fine-grained analyses, drawing on the relative advantages of qualitative *and* quantitative techniques, for the large-scale analysis of media texts (Nelson 2020).

Stage 4: Corpus-Assisted Discourse Analysis

To compare the relationships within and between the three clusters of countries, we used corpus-assisted discourse analysis, aided by *AntConc*. This approach and tool have been widely used in communication studies, for example, to study differences in how Muslim communities are portrayed across UK media (Baker, Gabrielatos, and McEnery 2013) or to analyse differences in reporting on North Korea in US media (Kim 2014).

Specifically, we manually searched for words collocated to "humanitarian*" (i.e., words found very close to it, indicating strong lexical associations), as well as conducting keyness searches (keywords are unusual terms, the prominent use of which differentiates one corpus of texts from another). The meaning of specific keywords, their relationship to each other, and to the emergency imaginary, was then analysed using advanced collocate and keyword-in-context searches.

When exploring collocations, we used two measures: (log) likelihood and effect (size), as measured by *AntConc*. Likelihood measures the probability of a target word appearing within five words to the left and five to the right of the chosen collocate. The effect score measures the degree of closeness between two words. Words that appear together very often will have a higher score. To compute this effect, *AntConc* uses a measure of mutual information or MI (that is, how frequently a collocation occurs against the predicted values).

When conducting cross-cluster comparisons of keywords, we relied more heavily on effects than likelihood measures, as these give more reliable results with differently sized corpora (Gablasova et al., 2017). In reporting our results, we removed some lexically insignificant terms (i.e., "a", "the" and "and") from findings tables. But we did not remove other common stop words (e.g., "we", "our" and "in", "for" or "to"), which could be relevant to the emergency imaginary.

Stage 5: Document Similarity Analysis

The final stage in our analytical workflow involved comparing online journalism with other kinds of reporting. This involved separating country corpora into digital (defined as "online") and non-digital journalism (defined as newspapers, magazines, TV and radio), and then re-running Stages 3 and 4. Our findings prompted us to conduct document similarity analysis to compare the percentage of news agency copy used in online journalism with other media outlets.

The approach we took to this process mirrored that outlined in Welbers and Van Atteveldt (2019) and used the RNewsflow package to compare text messages across time and media. Given that our corpus did not include online journalism from every country, we only retained countries for which we had at least 1,000 media items for each of the two categories. The size of our dataset at this stage was 852,199 media items from 260 media sources in 20 countries.

We compared each news agency article with all the media items published within the next 48 h and computed their cosine similarity. Articles with a score of 0.97 or above were considered as highly similar to the news agency wire. To determine this threshold, we manually inspected a range of articles with scores from 0.95 to 0.99

and found that those with a score of 0.97 and above were quasi-identical. Finally, we counted the number of articles that were highly similar for each country and category (digital vs. non digital media) and plotted a network of text similarities (Figure 5),[8] where yellow nodes are news agencies and grey nodes are countries/type of media. Thicker edges represent a higher degree of text reuse.

Discussion of Findings

We will now discuss our findings, beginning by interrogating the extent to which journalists frame their coverage of humanitarian affairs in terms of "emergencies", and how such reporting varies around the world. We will then go on to compare digital and non-digital journalism, to explore the extent to which online journalism differs from legacy media.

Cluster 1

Cluster 1 was the largest corpus, consisting of 422,443,674 words (63% of the dataset). Despite this, it was the smallest cluster on the cluster plot (Figure 3), indicating that this was the most linguistically coherent corpus. Cluster 1 also appeared to have the strongest relationship to the emergency imaginary. It included the UK and USA, as well as other Anglophone countries: namely, Australia, Canada, and Ireland. But despite Calhoun's claims about the grounding of the emergency imaginary in European imperialism (2004, 2010), France and Germany were positioned in cluster 2, and one other Anglophone country, New Zealand, was found in cluster 3. In both cases, these countries were positioned on the edges closest to cluster 1.

The 20 words most likely to be collocated to "humanitarian*" in Cluster 1 are listed in Table 1. Many of these words related to key dimensions of the emergency

Table 1. Top 20 collocates of "humanitarian*" in cluster 1.

Collocate	Likelihood	Effect
Crisis	349011.615	4.425
Aid	339782.077	4.079
Assistance	1448537.337	4.611
Covers	73850.079	5.652
Catastrophe	57544.504	5.249
Disaster	53747.676	3.738
Grounds	46074.900	5.027
International	41414.036	2.238
Law	39971.687	2.845
Access	39476.861	3.312
Relief	36947.048	3.387
Affairs	35855.345	3.483
Worst	35116.010	3.609
Situation	35015.472	3.609
Coordination	3.4599.215	4.997
Crises	32934.731	4.657
Coordinator	24362.665	4.736
Agencies	23219.515	3.236
For	2264.012	0.767
UN	21718.989	2.179

Note: In bold, words that, together, refer to UN bodies.

Table 2. Keywords for cluster 1 relating to emergency imaginary.

Keyword	Likelihood compared to cluster 2	Effect compared to cluster 2	Likelihood compared to cluster 3	Effect compared to cluster 3
We	170897.711	0.012	80151.553	0.012
Now	123283.264	0.004	48542.232	0.004
Here	112213.575	0.002	21947.286	0.002
Money	14196.286	0.001	4756.964	0.001
Died	2522.999	0.001	1833.329	0.001
Life	1865.381	0.001	203.833	0.001
Give	4352.784	0.001	755.241	0.001
Death	436.902	0.001	132.018	0.001
Help	55.829	0.001	n/a	n/a

imaginary, including the problem (e.g., "crisis", "crises", "catastrophe," "disaster") and recommended remedial treatment, articulated in the form of nouns (e.g., "aid", "assistance", "relief"). As Calhoun's work indicated (Calhoun 2004), this list also contains several terms referring to the UN's "Office for Coordination of Humanitarian Affairs" (OCHA), as well as UN's "Under-Secretary General for Humanitarian Affairs and Emergency Relief Coordinator" (in bold).

However, other clusters had similar lists of the top 20 collocates of "humanitarian*" (see Tables 5 and 8). However, Cluster 1 was the only cluster more likely to mention the problem ("crisis") than remedial treatment ("aid" or "assistance"). Cluster 1 was also differentiated from other clusters *via* prominent keywords, listed in Table 2, which resonate strongly with the emergency imaginary.

Examining the collocation of keywords, and analysing keywords in context, was revealing. Although "we" is a commonly occurring word in the English language, its collocation with "humanitarian*" in Cluster 1 had specific features. Typically, UN spokespeople and aid workers used "we" to appeal for emergency funding from the international community, *via* phrases like "We are facing the worst/the largest/an unprecedented humanitarian emergency." Indeed, the phrase "We are facing" was used 1,916 times in this corpus.

Likewise, "now" is a commonly occurring term—particularly in news—but it was highly likely to be collocated with "humanitarian*" in Cluster 1. These collocated words were commonly used to describe the problem (e.g., "crisis, "disaster", and "catastrophe"). Although may reports referred to cross-border flows of displaced people, journalists created a sense of geographical specificity by reporting from affected locations—hence the keyness of "here" when compared to the other two clusters.

The seriousness of the situation was reenforced by stressing the immediate threat to life and high mortality rates: referred to *via* the keywords, "life", "death" and "died." Whilst "now" tended to refer to the imperative to act swiftly, as it was strongly collocated with humanitarian "aid" and "assistance." Associated verbs were "help" and "give"; "give" was then collocated with "money." Furthermore, the sense of immediacy was often strengthened by collocating "right" and "now", to form the phrase "right now," which occurred 101, 409 times in the corpus.

Another word, "unfolding", initially appeared to refer to longer-term processes. Cluster 1 was the most likely to collocate "unfolding" with "humanitarian" to describe the development of the crisis over time. However, "unfolding" was also related to three other categories of words, which all resonated with the emergency imaginary (see Table 3).

Table 3. Collocates of "unfolding" in cluster 1.

Category	Collocate	Likelihood	Effect
Performative terms	Drama	807.440	5.828
	Story	309.406	2.663
	Scenes	295.047	4.461
Emotive terms	Horror	498.857	5.499
	Horrors	285.877	5.803
	Terrible	190.063	3.651
Size	Scale	285.387	3.480
	Proportions	275.942	6.278
	Immense	269.500	5.639

Table 4. Cross-cluster comparison of collocates of "humanitarian*".

Cluster	Collocate	Effect
1	Appeal	6.206
2		4.995
3		5.021
1	Urgent	3.424
2		2.675
3		2.701
1	Emergency	2.229
2		1.926
3		1.932
1	World	1.430
2		1.174
3		0.908

Together, these findings resonated so strongly with the emergency imaginary that we conducted further comparative searches to see what else might distinguish Cluster 1 from other clusters. We found that collocating "humanitarian" and "emergency", "appeal", "urgent" and "world" had much stronger effect on this cluster than any other (see Table 4).

All the countries in Cluster 1 were either part of the Emergency Appeals Alliance or had bodies seeking membership. Yet only the oldest, the UK's DEC, achieved a significant number of mentions: it was referred to 1,065 times, mostly by UK media, but also by media in all the other countries in Cluster 1. Yet the UN seemed to play a more significant role in shaping discourse about humanitarian appeals: the words "UN" and "appeal" were much more likely to be collocated than the names of members or affiliates of the Emergency Appeals Alliance.

Overall, the humanitarian reporting by countries in Cluster 1 seemed to relate most strongly to Calhoun's model of the emergency imaginary and related fundraising appeals. However, it was difficult to gauge the relative presence (or absence) of longer-term or complex causality. Armed conflict was portrayed, across all clusters, as the most common cause of "humanitarian emergencies." In Cluster 1, the most common collocate of "humanitarian*" and "caus*" was "bombs." Less frequently cited causes of a "humanitarian emergency" in this cluster included the spread of disease (e.g., "cholera" and "pandemic"), and lastly, extreme environmental events (e.g., "cyclone.")

Nevertheless, humanitarian organisations were portrayed as playing a contested role within heated political debates about "immigration": a keyword differentiating Cluster 1 from others. Likely collocates of "humanitarian*" and "migrants" included "rescued" and "rescue." When viewed in context, these words referred to the efforts

of some international NGOs, to save migrants from life-threatening circumstances, even when this involved defying national governments. A key focus of this coverage involved allegations made by the Italian government in 2017 that NGOs had colluded with people smugglers by "rescuing" "migrants" from small boats. Such actions therefore played into a broader tension between political claims regarding the "illegal" nature of "migration" and moral claims regarding the need for a "compassionate" approach.

Finally, the language used to frame cross-border flows of people played a crucial role in differentiating different sub-groups in Cluster 1 from one another. The keyword "refugee" differentiated Irish and Canadian media, at one end of the cluster, from US and UK media, at the other. Such terminology has powerful moral and legal implications, grounded in the Geneva Convention. Thus, collocates of "refugee" in Irish and Canadian coverage included "fleeing", "protection", and even "welcome." When the US and UK media did use the term "refugee", they did not tend to collocate it with these terms, although both groups discussed the legal "status" of "refugees," and their right to "resettlement."

Cluster 2

The corpus for Cluster 2 was significantly smaller than Cluster 1, including 180,343,996 words (27% of the dataset), but it contained far more countries than any other cluster (see Figure 3). These were: China, Egypt, France, Germany, Iran, Israel, Nigeria, Pakistan, Qatar, Russia, South Africa, Turkey, and UAE. The cluster was also the largest on our cluster plot (see Figure 1), indicating the least linguistic coherence. Cluster 2 was the most likely to mention the word "humanitarian*", but these countries tended to used hybridised discourse: discussing humanitarian action in relation to longer-term engagement with security, conflict resolution, and/or socio-economic development.

The top 20 collocates of humanitarian* for Cluster 2 (Table 5) were similar to Cluster 1 (see Table 1), but these collocates appeared in a different order. Cluster 2 was more

Table 5. Top 20 collocates of "humanitarian*" in cluster 2.

Collocate	Likelihood	Effect
Aid	304271.098	3.546
Assistance	144082.943	3.648
Crisis	142193.177	3.275
Affairs	66942.521	3.341
Law	57704.222	2.946
Coordination	49981.580	3.839
International	49006.925	1.881
Situation	46242.177	2.475
OCHA	37651.929	4.192
Coordinator	34342.680	3.948
Access	32134.141	2.777
Disaster	3.1988.425	2.950
Catastrophe	31215.998	4.256
Relief	31199.302	2.626
Office	28646.884	2.603
Grounds	28313.189	4.165
For	27676.673	0.834
Worst	24769.321	3.202
Delivery	23429.414	3.505
UN	22346.436	1.408

Table 6. Keywords differentiating cluster 2 from other clusters.

Keyword	Likelihood compared to cluster 1	Effect compared to cluster 1	Likelihood compared to cluster 3	Effect compared to cluster 3
Russian	155656.289	0.003	60243.014	0.003
Israel	104761.131	0.002	43810.010	0.002
Nigeria	96544.918	0.001	31844.576	0.001
Foreign	56515.619	0.002	6169.040	0.002
Ministry	127152.611	0.002	4311.045	0.002
Ceasefire	8827.045	0.001	5393.291	0.001
Country	n/a	n/a	2863.519	0.004
Countries	55230.600	0.003	n/a	n/a
Palestinian	65321.602	0.001	11938.169	0.001
Gaza	2736.819	0.001	16778.094	0.001
Ukraine	n/a	n/a	15480.592	0.001
Ukrainian	27930.616	0.000	n/a	n/a

likely to mention remedial action (e.g., "aid" or "assistance") than the problem ("crisis"). Cluster 2 was also the most likely to describe the problem as a "situation": ranking this word higher than more emotive terms, such as "disaster" or "catastrophe" (indicated in bold). Finally, as we indicated earlier, Cluster 2 was the least likely of all to collocate "humanitarian*" and "appeal", "urgent" or "emergency" (see Table 4).[9] Instead, Clusters 2 and 3 both tended to collocate "humanitarian*" and "partners."

Keyness findings indicated that Cluster 2 was distinguished from others *via* its very strong focus on countries and relations between them (see Table 6). Three specific countries were mentioned very frequently—Russia, Israel, and Nigeria—usually in relation to specific armed conflicts. These were: Russia's interventions in Ukraine, including its invasion of Crimea in 2014; ongoing tensions between Israel and Palestinians in Gaza; and to a lesser extent, Nigeria's struggles with the Islamist militant group, Boko Haram, which is also active in Cameroon, Chad, Mali, and Niger.

These keywords explain why Cluster 2 was the most likely to portray the cause of a "humanitarian emergency" as being armed conflict, with common collocates of this phrase and "caus*" including "bombs," "fighting", and flows of "displaced" people. Extreme environmental events such as "flooding" were mentioned less frequently. But interestingly, disease was unlikely to be cited as causing a "humanitarian emergency" by Cluster 2, despite the seriousness of the Ebola epidemic in West Africa between 2014–2016, and the global COVID19 pandemic, which broke out in China in 2020.

The unusually frequent coverage of armed conflicts in Cluster 2 helps to explain the varied distribution of countries in our cluster plot (see Figure 3). Pairs of strategic allies (i.e., Russia and Iran; China and Pakistan; and France and Germany) were positioned relatively close together in our cluster plot. However, a shared focus on the same conflict/s also meant that pairs of states with tense diplomatic relations (i.e., Israel and South Africa; Qatar and UAE) could also be positioned close together.

Keyness comparisons helped explain how these countries conceptualised the relationship between international relations, armed conflict, and humanitarianism. Comparisons with Cluster 1 showed that Cluster 2 was unusually likely to discuss the control or resolution of armed conflict, as indicated by the terms, "security" and "peace" (see Table 7). These words were closely collocated to "humanitarian*", within the broader context of international diplomacy ("cooperation", "statement", "relations," and "talks"). Rather than locating the problem in a specific place ("here") or alluding to a cosmopolitan global community ("we"), Cluster 2 was more likely to discuss these matters in relation to the "region."

Table 7. Keywords differentiating cluster 2 from cluster 1.

Keyword	Likelihood compared to cluster 1	Effect compared to cluster 1	Likelihood of collocation to "humanitarian*"	Effect of collocation to "humanitarian*"
Humanitarian	202089.977	0.006	n/a	n/a
Cooperation	128945.444	0.001	33603.246	4.972
International	90443.687	0.004	214157.856	4.981
Development	62169.697	0.002	46855.664	4.973
Peace	57083.551	0.002	12747.896	4.966
Security	49718.332	0.003	49753.940	4.970
Statement	47306.492	0.002	18807.023	4.976
Region	49289.726	0.002	25919.714	4.976
Talks	29285.443	0.002	6108.485	4.965
Relations	4282.777	0.001	6460.600	4.973

Nevertheless, Cluster 2 was so disparate that it is important not to over-generalise. France and Germany, which appeared on the left of the cluster, close to Cluster 1, were members of the Emergency Appeals Alliance. But their media had a greater emphasis on "talks" geared towards resolving "fighting" (especially in Ukraine), as well as tackling problems relating to "migrants" and "asylum." This group was highly likely to refer to the "UN" and "European" bodies as taking appropriate remedial action.

By contrast, a second group of countries towards the centre of the cluster—Egypt, Turkey, and Nigeria—were more likely to use the keyword "development", which related to "social" and "economic" matters, including "education", "health" and the well-being of "girls." These keywords were consistently collocated with "peace," as well as "humanitarian*." In addition, this sub-group of countries was differentiated from France and Germany *via* the keyword "national", used to refer to the government, specific government agencies, and/or the scope of humanitarian action.

It is important not to assume that the media produced by these two groups of countries facilitated what some humanitarian activists and communications scholars have lobbied for: that is, discussions about the longer-term action needed to relieve suffering, including conflict resolution and development (Saez and Bryant 2023; see also Iyengar 1991). This is because the humanitarian reporting discussed here became prevalent in Egypt and Turkey at a time of profound de-democratisation, characterised by a lack of press freedom. Thus, media representations of the government as a benevolent humanitarian and development actor, or an upholder of national and regional security, usually served authoritarian purposes (Adly 2016; Yeşil 2024).

Indeed, the nation state was increasingly positioned as the primary humanitarian actor, as we moved horizontally across Cluster 2 from left to right. This correlated with the ranking of these states according to The Economist Democracy Index. Those on the left-hand side—closest to the Anglophone countries in Cluster 1—were categorised as full or flawed democracies between 2010 and 2020. Whilst countries towards the middle and the right of the cluster were ranked as hybrid regimes or full authoritarian states.

Nevertheless, authoritarian states took widely varying approaches to covering humanitarian issues. China and Russia contrasted particularly strongly, as indicated by their separation on our cluster plot (see Figure 3). Keyness searches showed that

China was much more likely than Russia to use elements of the emergency imaginary, including words defining the problem (e.g., "disaster"), and recommended remedial actions (e.g., "rescue" and "help"). Chinese media also emphasised those classic depoliticised victims, "children", and stressed the importance of Chinese and other "governments" cooperating with each other and the UN to relieve suffering.

However, China's approach shifted abruptly from April 2020 onwards, when it began to stress China's bilateral provision of humanitarian aid to other countries afflicted by COVID19, in the form of medical supplies. Chinese national and international media repeatedly quoted a government paper, refuting claims that this "mask diplomacy" (Qi, Joye, and Van Leuven 2022) was designed to diffuse European criticisms that China had covered up the outbreak. Interestingly, this government paper uses the tender-hearted altruistic language of the emergency imaginary, arguing that,

> It is out of the kindness of Chinese people, the empathy they have with people of other countries suffering from the pandemic, the humanitarian spirit of helping each other in disasters, and the sense of responsibility that China has offered help to other countries to the best of its ability.
>
> (*Fighting COVID19: China in Action*, quoted in the *People's Daily*, June 7, 2020).

By contrast, Russian media tended to use its coverage of humanitarian issues to blame its enemies for causing suffering. For example, between 2016–2019, Russia's Sputnik and its wire agency, ITAR-TASS, repeatedly claimed that the US was blocking the delivery of humanitarian supplies from international organisations to the Rukban refugee camp in Southern Syria. Whilst a humanitarian organisation (the White Helmets), which operates in opposition-held Syria, was repeatedly attacked. Russia disseminated 1,272 items discrediting this group: alleging that they made fake" claims, were involved in "terrorist" activities, or had links to Israel and Western countries, in an organised disinformation campaign (Cosentino 2020).

Finally, it is worth stressing that Russia's coverage of its own humanitarian action was heavily militarised. For example, in 2017, the Russian wire agencies, Interfax and ITAR-TASS, reported that the Russian military had engaged in seven "humanitarian operations" in Syria within 24 h. Throughout spring of 2014, Russian media also disseminated 282 media items about 55 "humanitarian convoys" that the country had sent to "residents of Ukraine's crisis-hit southeast (Donbas) region." However, this was later found to be a ruse to bring unmarked Russian troops and ammunition into Ukraine (Scrinic 2014).

Cluster 3

Cluster 3 had the smallest corpus in the study, amounting to 675,145,15 words (approximately 10% of the dataset). Yet it was the second largest on our cluster plot (see Figure 3): indicating that it was less linguistically coherent than Cluster 1, but more coherent than Cluster 2. Cluster 3 was also the most geographically coherent: consisting largely of countries in South and South-East Asia (India, Malaysia, the Philippines, Singapore, and South Korea), as well as New Zealand in the Asia-Pacific

region. Saudi Arabia was the "odd country out": it was positioned on the edge closest to Cluster 3, which included other Gulf countries.

Like Cluster 2, Cluster 3 also appeared to blend aspects of the emergency imaginary with other discourse. This cluster tended to stress the need for "humanitarian" action to cope with "natural disasters", but this action was articulated in national and regional terms. Indeed, Cluster 3 was least likely of all to collocate "humanitarian" and "world" (see Table 4). However, the top 20 collocates of "humanitarian*" (see Table 8) differed from those of other clusters for more specific reasons.

Table 8. Top 24 collocates of "humanitarian*" in cluster 3.

Collocate	Likelihood	Effect
Aid	14366.668	3.535
Assistance	78957.559	3.772
Relief	5048.571	3.323
Crisis	43972.141	3.300
Grounds	42071.658	4.626
Law	29979.400	3.134
International	23235.231	2.124
Salman	22659.674	3.843
Disaster	19391.923	2.903
Coordination	18933.956	3.951
Affairs	17531.521	2.997
Ksrelief	16644.149	4.120
Center	16514.440	4.120
OCHA	15452.735	4.262
King	14306.263	3.262
Coordinator	21356.575	3.997
For	11900.017	0.862
Response	11591.325	2.594
Access	10389.305	2.669
Office	6629.985	2.452
Situation	8488.641	2.161
Catastrophe	6529.809	4.129
Crises	6119.764	3.516
Agencies	6051.117	2.505

Note: In bold, words that appear amongst top 20 collocates in cluster 3, but not in clusters 1 and 2.

The appearance of four new words (in bold) was caused by the overwhelming amount of Saudi coverage of two Saudi humanitarian organisations. These national organisations were the King Salman Humanitarian Aid and Relief Center (KSRelief), and the King Abdullah International Humanitarian Foundation (KAIHF), which were closely associated with the ruling royal family. To avoid misleading other researchers about the extent to which the overall cluster differs from others, we have therefore included four further collocates.

Cluster 3 was also differentiated from other clusters *via* a list of keywords (see Table 9), including several terms that appeared to relate to the emergency imaginary. These related to the problem ("disaster"), recommended remedial treatment ("provide", "help", "relief" "assistance"), as well as references to classic innocent victims ("children"). But the most common collocate of the keyword "human*" did not relate to the emergency imaginary at all: instead, it was most likely to be collocated to "rights." This helps explain why Cluster 3 was also the most likely to collocate the terms "humanitarian" and "law," a finding which begs for further research.

Table 9. Keywords differentiating cluster 3 from other clusters.

Keyword	Likelihood compared to cluster 1	Effect compared to cluster 1	Likelihood compared to cluster 2	Effect compared to cluster 2
Disaster	19000.092	0.001	6341.087	0.001
Government	16966.925	0.005	538.582	0.005
Provide	11174.150	0.001	319.000	0.001
Relief	56030.085	0.002	12751.912	0.002
Assistance	45930.137	0.002	2400.088	0.002
Respect	44483.219	0.001	11777.841	0.001
Human	16228.269	0.002	69.258	0.002
Victims	3930.561	0.002	378.066	0.001
Help	1679.653	0.002	1782.035	0.002
Children	1852.049	0.002	79.168	0.002

Like other clusters, Cluster 3 portrayed the primary cause of a "humanitarian emergency" as armed conflict, with likely collocated terms including "bombs" and "fighting." However, an "earthquake" was also cited as a prominent cause of a "humanitarian emergency." This was because most countries in Cluster 3 were located on, or close to, an area of significant seismic activity, known as the Pacific "Ring of Fire." Earthquakes receiving frequent coverage included those occurring in Japan in 2011, Nepal in 2015, and Indonesia in 2018.

Both earthquakes and extreme environmental events were commonly described as "natural disasters." The most notable of these extreme environmental events was Typhoon Haiyan in 2013. But the storms and cyclones repeatedly affecting Fiji and other Pacific islands, as well as floods affecting India, Pakistan, and Northern Australia in 2011, also received generous amounts of news coverage.

The description of these "disasters" as "natural" appears to avoid discussions of complex causality, which characterises the emergency imaginary. The phrase "natural disaster" was also collocated with the terms, "crisis" and "emergency." Other collocates included words indicating scale, like "worst" and "deadliest," as well as emotive language, such as "devastating." In addition, the phase, "natural disaster" was likely to be collocated to "victims", and main remedial treatment was humanitarian "assistance."

Yet the phrase "natural disaster" was also collocated with terms denoting the need for longer-term remedial action. These words included "reduction", "risk", "preparedness" and "resilience." Examining collocated terms in context showed that longer-term responses were seen as necessary because such "natural disasters" were caused by an ongoing global trend, "climate change." However, we did not find indications that the longer-term responses discussed in Cluster 3 involved tackling the manmade causes of climate change.

Both immediate and long-term responses to "natural disasters" were portrayed as led by "national" bodies, including national governments, councils, and disaster recovery funds. The military was also portrayed as leading disaster responses in some countries, especially South Korea and the Philippines, although this did not correlate with authoritarianism, as in Cluster 2. The word "regional" was less likely to be collocated with "disaster"; but regional bodies were still portrayed as important actors in preventing and responding to disasters, especially the Association of Southeast Asian Nations. Indian media tried to position the country as leading "Humanitarian Assistance and Disaster Relief" in the Indo-Pacific region, but no other country in Cluster 3 referred to it in this way.

However, India and Bangladesh were the focus of most of the coverage in Cluster 3 on "human rights" issues, which focused on "Rohingya" refugees who fled to these countries, following the 2017 genocide carried out by the military in Myanmar (Irom et al. 2022). Thus, "Rohingya" was the most common collocate of "human rights" in Cluster 3, followed by "refugees" and "Myanmar." Concern about the plight of the Rohingya was particularly prominent in New Zealand, as well as Singapore and Malaysia, which have large Muslim populations. These countries commonly used the word "crisis" to blend "human rights" and "humanitarian" concerns. In so doing, they took the UN's lead, often quoting the UN's Secretary-General, who announced that the situation in Myanmar had spiralled into the "world's fastest-developing refugee emergency, a humanitarian and human rights nightmare."

However, Indian media rarely collocated "Rohingya" and "rights," and when viewed in context, their collocation of "Rohingya" and "humanitarian*" had decidedly mixed meanings. Collocated terms included references to the problem (e.g., "crisis", "catastrophe") and remedial action (e.g., humanitarian "assistance" and "aid"), which appeared to align with the emergency imaginary. But more negative collocates also occurred, such as "engulfing" and "undesirables." Indeed, Indian media alternately positioned Rohingya refugees as experiencing, and as *creating* a "humanitarian emergency," in the country. Thus, Indian media sometimes used the language of the emergency imaginary to blame the Rohingya for their own suffering. Indeed, the most common verb relating to these displaced people was not "help" or "save"—but "deport."

Finally, India's ally, Saudi Arabia, regularly used the language of the emergency imaginary to attack its opponents, especially enemies of the Saudi-led coalition in Yemen. Like Russia in Cluster 2, Saudi outlets repeatedly accused Houthi forces of directly contributing to the "humanitarian disaster" in Yemen by blocking, stealing, or confiscating aid. In addition, Saudi outlets sought to discredit a UN group of experts, who reported that war crimes had been committed against civilians by all sides, including the Saudi-led coalition.

Meanwhile, Saudi media legitimised its interventions in Yemen's civil war by giving vast amounts of coverage to royal foundations' provision of relief to the "victims" of the "humanitarian disaster" in that country. "Children" played a particularly prominent role as worthy victims in Saudi coverage, so were likely to be collocated with "humanitarian" in the Saudi sub-corpus. For example, in 2019 and 2020, *Arab News* and *The Saudi Gazette*, both covered the distribution of Eid gifts to hundreds of Yemeni orphans by KSRelief, as part of projects called "Their Happiness is our Happiness", or else "Their Happiness is our Hope."

Online Journalism

We anticipated that representations of humanitarian issues in digital media might bear a stronger resemblance to the emergency imaginary because online journalism often relies more heavily on externally provided content, including aid agency material (Wright 2018) and wire agency copy (Boumans et al. 2018; Saridou et al. 2017). So, we repeated our clustering analysis, comparing digital (online) journalism with non-digital journalism (TV, radio, newspapers and magazines). The results are illustrated in Figure 4.[10]

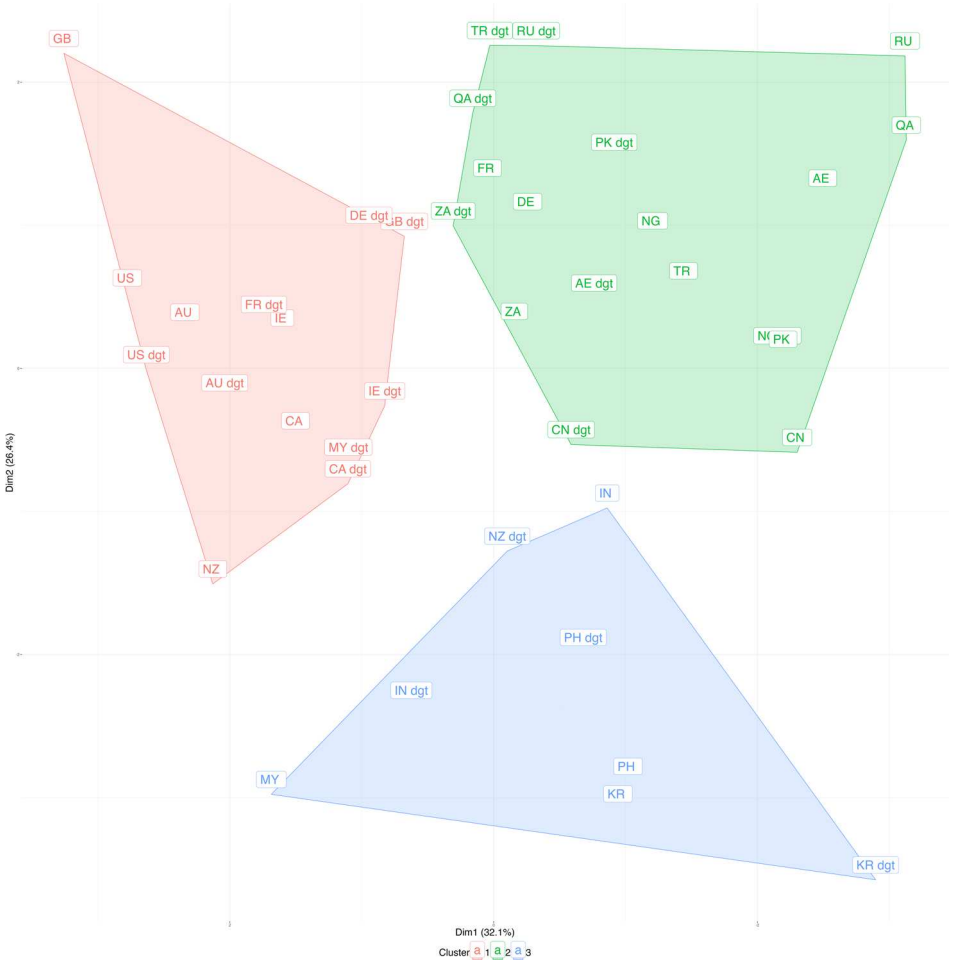

Figure 4. Cluster plot separating digital and non-digital content based on the similarity in use of "emergency imaginary" keywords.
Note: In cluster 2, "PK" partially covers the label for "NG Digital". In cluster 1, "DE Digital" partially covers" "GB Digital".

Figure 4 shows that the digital content of most countries stayed within the same clusters as our initial analysis (see Figure 3), but the digital content from several countries appeared to have a greater similarity to the Anglophone countries heavily dominated by the emergency imaginary. For example, Figure 4 shows that the digital content from several low/middle income countries (India, Pakistan, and South Africa) was drawn towards the centre of the diagram, closer to Cluster 1. In addition, the digital content from three authoritarian countries (China, Qatar, and Russia) was also pulled towards the edge of Cluster 2, closest to Cluster 1. In addition, Cluster 1 "pulled in" digital content from France, Germany, and Malaysia, which were previously located in other clusters. Although there is one outlier: Cluster 1 appeared to pull in non-digital content from New Zealand.

Thus, the digital coverage of humanitarian issues in several countries appears to be much more strongly related to the emergency imaginary than the coverage in non-digital media. What possible explanation might there be for these results? It's

difficult to trace the use of aid agency material as this is often unattributed (Wright 2018). So, instead we conducted a similarity analysis comparing the percentage of stories in each country's digital and non-digital output, which matched copy from a variety of major wire agencies. We included major "non-Western" agencies, as well as the "Big Three" discussed in previous research, AFP, AP and RTR (Kwak and An 2014; Scott, Wright, and Bunce 2021).

Our findings support previous studies (Boumans et al. 2018; Saridou et al., 2017), as the online journalism we sampled was much more heavily dependent on wire agency copy than legacy media (illustrated in Figure 5). Moreover, the usage of "non-Western" agencies was largely limited to the countries that fund them. AFP, AP and RTR had much greater international reach, although the extent of countries' dependency on these wire agencies varied considerably.

The continued dependence of some countries' online journalism on major "Western" wire agencies (see Figure 5) may help to explain the differences between digital and non-digital content in Figure 4. The highest percentage of copy matching wire agencies was found in the digital output of the three low/medium income countries, which appear in a more centralised position in Figure 4. These countries were particularly dependent on AFP: 28% of online content from Pakistan, 14% in South Africa and 9% in India was identical to this agency's copy.

Two of the countries whose online journalism moved to Cluster 1 were also heavily dependent on RTR: 28% of online journalism in Malaysia and 14% in France matched this agency's copy. In addition, the movement to Cluster 1 of our outlier, New Zealand's non-digital output, mapped onto its dependence on a "Western" wire agency: 12% of its non-digital journalism matched copy produced by AP. Unusually, this was a far lower percentage than the country's digital content, which did not show significant similarity with any wire agency.

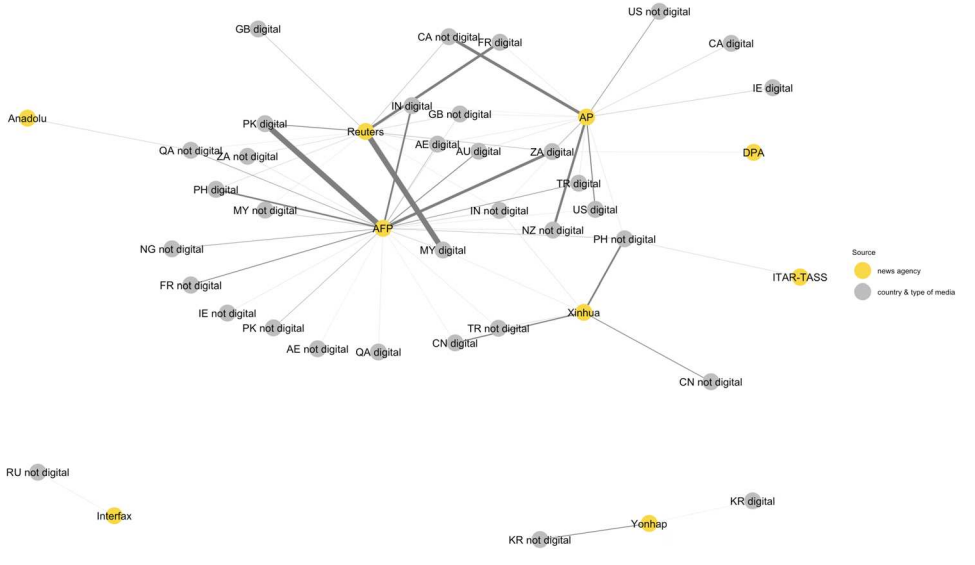

Figure 5. Network of average cosine similarities between wire agency content and digital/non-digital media in selected countries.

Nevertheless, dependence on copy provided by AFP, AP and RTR can only be a partial, tentative hypothesis for the differences in digital media evident in Figure 4. This is because we did not find a high percentage of similarity between German online journalism and these wire agencies, despite its appearance in Cluster 1. What was even more puzzling was the positioning of online journalism from China, Qatar and Russia towards the edge of Cluster 2, closest to the Anglophone democracies in Cluster 1. The digital output from all three authoritarian countries had less than 1% similarity with the copy produced by AP, AFP and RTR. Instead, as expected, Russia and China relied on their own wire agencies (see Figure 4).

Collocation searches for the word "humanitarian*" confirmed that the relationship of the online content from Germany, China, Russia and Qatar to the emergency imaginary was significantly different to that of other media. However, these differences seem likely to have been influenced by the limited nature of our samples of Anglophone digital content from these countries. We had not originally intended to compare digital and other media, so our corpus only included one online outlet for each of these countries. For Germany, we used the website for Deutsche Welle; for China, we used CGTN's website; for Russia, we used RT Digital; and for Qatar, we used the site for AJE.[11]

All four organisations are (wholly or partly) government funded, and target international audiences for diplomatic reasons, which seems likely to have influenced the different positioning of these countries' digital and non-digital output (Figure 4). Thus, future research into humanitarian reporting might consider whether government-funded international networks are more likely to reproduce specific aspects of the emergency imaginary, and if so, what diplomatic purposes this serves. However, to be accurate, researchers would also need to take into account the differences between state-controlled media, public service media, and more liminal "captured" networks (Wright, Scott, and Bunce 2024).

In particular, it is worth highlighting striking differences between Qatar's non-digital output and the Al Jazeera English site, which were immediately apparent from searches for collocates of the word "humanitarian". Comparing the top twenty lists of collates shows that the AJE site was significantly more likely to collocate "humanitarian*" with "crisis" than with "aid," as well as using terms like "worst", "dire", and "urgent" (see Tables 10 and 11). However, the word "warned" was also a relatively significant collocate of "humanitarian" in AJE's coverage (likelihood 208.441, effect 2.151). "Warned" did not appear at all in the list of collocates for Qatar's non-digital content, which seems to support AJE executives' claims about the network's efforts to avert impending crises (Ghanem 2020).

A similar sampling issue is likely to have affected our analysis of British online journalism, which is positioned very differently to non-digital output in Cluster 1 (see Figure 4). For Great Britain, we only included two digital outlets: BBC News Online and the Thomson Reuters Foundation. Further analysis might usefully examine the extent to which BBC broadcast journalism contributed to this difference, given the potential implications of the Corporation's agreement with the DEC (Franks 2008). But another contributory factor seems likely to be the specialist nature of the humanitarian coverage provided by the Thomson Reuters Foundation (Scott, Bunce, and Wright 2022). This Foundation grew out of the niche humanitarian service, *Alertnet*, which

Table 10. Top 20 collocates of "humanitarian*" in AJE online.

Collocate	Likelihood	Effect
Crisis	7161.869	3.899
Aid	6671.873	3.690
Assistance	3610.655	4.459
Affairs	2016.600	4.181
Law	1888.573	3.322
Worst	1865.196	4.002
Coordination	1805.280	4.954
International	1422.458	2.213
Catastrophe	1400.578	4.865
Situation	1237.490	2.805
Coordinator	1213.772	4.684
UN	1131.181	1.932
Access	1044.016	3.132
OCHA	1032.997	5.065
Office	997.497	3.121
World	904.820	2.089
Disaster	890.769	3.400
Organisations	859.645	3.411
Crises	703.190	4.386
Grounds	672.859	4.525
Need	648.896	2.300
Relief	501.316	2.963

Table 11. Top 20 collocates of "humanitarian*" in non-digital output from Qatar.

Collocate	Likelihood	Effect
Aid	4764.264	2.747
Assistance	3587.138	3.207
Crisis	2889.975	2.519
Law	2765.840	2.965
International	1792.524	1.581
Affairs	1569.824	2.567
Situation	1448.405	2.597
OCHA	1406.292	3.940
Services	1345.413	2.439
Coordination	1336.560	3.214
Relief	1289.676	2.222
Action	1287.698	2.791
RAF	1157.575	2.789
Foundation	1043.170	2.533
Organisations	1003.460	2.370
Response	993.476	2.541
Abdullah	935.046	2.522
Catastrophe	768.893	3.947
Office	763.113	2.136
Crises	755.415	2.841

was founded after the Rwandan genocide in 1994. So, it has had a long-term interest in the relationship between humanitarian aid, human rights, refugees and trafficking (Scott, Wright, and Bunce 2021). The prolific nature of this Foundation's online output seems highly likely to have pulled GB digital output to the edge of Cluster 1, closest to Cluster 2, which was characterised by greater engagement with armed conflict and international law.

Thus, our comparative analysis of digital and non-digital output had some limitations relating to corpus construction, which this makes us wary of generalising too much. Nevertheless, focussing on the different positioning of specific online outlets

helps us demonstrate another important critical point: that is, how different individual outlets can be even within the same country. Therefore, we hope to have encouraged scholars to balance future comparative research about the emergency imaginary, with an alertness to the specificity of different media and different news outlets.

Conclusion

This study used a sophisticated blend of computational/quantitative and manual/qualitative methods to analyse claims about the global dominance of a single interpretative frame in journalism about humanitarian issues, Calhoun's famous emergency imaginary (Calhoun 2004, 2008, 2010). We found that the relationship between media outlets and the emergency imaginary appeared to differ significantly and discussed these differences in terms of three clusters of countries.

Cluster 1 was the most linguistically coherent cluster and was composed of Anglophone countries. Our findings suggest that it was the most closely related to the emergency imaginary, in terms of the definition of the problem, recommended solution, and the imperative to act swiftly. We also found evidence of global cosmopolitanism, evoked *via* the collocation of "humanitarian*" and "world", as well as the repeated use of the word "we" to call for collective action from the international community. As Calhoun's work indicated, this discourse was strongly associated with the coverage of fundraising appeals, led by the UN agency, OCHA and, to a lesser extent, the UK's DEC. However, despite Calhoun's assertions about the grounding of the emergency imaginary in European imperialism (Calhoun 2004, 2008), this cluster did not include non-Anglophone European countries. In addition, these Anglophone countries sometimes portrayed humanitarian action as geospatially diffuse and highly contested, with international NGOs often challenging governments regarding their treatment of "migrants."

Cluster 2 seemed to use hybrid discourse, which blended aspects of the emergency imaginary with other frames. It was the most likely to mention the word "humanitarian" and the UN, especially OCHA, strongly influenced how countries in Cluster 2 defined the problem, recommended treatment, and relevant humanitarian actors. However, unlike Cluster 1, countries in Cluster 2 tended to frame effective humanitarian action in relation to longer-term activities, including conflict-resolution and development. Thus, rather than appealing to a cosmopolitan global community, this cluster focused far more on regional and national actors.

It is difficult to generalise further, as Cluster 2 was the least linguistically coherent cluster, containing many unalike countries. However, we did find that the less democratic a country was, the more it was likely to position its national government as the primary humanitarian actor. In addition, whilst the hybrid discourse in Cluster 2 initially appeared to evoke the kinds of long-term solutions, advocated by many humanitarian and communications scholars, this hybridity was often used by de-democratising and authoritarian states to justify anti-democratic action.

By contrast, most countries in Cluster 3 appeared to hybridise the emergency imaginary in positive ways: combining humanitarianism with an attention to human rights and long-term preparation for climate change on a national and regional basis. However, our discussion of how India utilised aspects of the emergency imaginary

to stoke religious and ethnic hate, and how Saudi Arabia used them to justify involvement in a protracted and bloody war, underlines the lesson from Cluster 2. That is, that hybridising aspects of the emergency imaginary with other perspectives does not necessarily always serve progressive ends.

Finally, we found that there were significant differences between countries' digital and non-digital output, which suggest that online journalism is more influenced by the emergency imaginary than other media. Document similarity analysis indicated that a significant factor was some countries' greater dependence on copy produced by three "Western" wire agencies, AP, AFP and RTR. The limited nature of our digital samples in Germany, China, Russia, and Qatar limited our ability to generalise further, although it did highlight the need for further study of the humanitarian reporting produced by government-funded international news networks. Other study limitations included our reliance on a monolingual corpus because of the variable accuracy of linguistic translation, likely to be exacerbated by the multivalence of the word "humanitarian*".

Nevertheless, this study is still ground-breaking: presenting the first systematic, largescale study about the existence and international distribution of the emergency imaginary, using a huge bespoke corpus. Our findings demonstrate that, on the whole, the Anglophone countries in Cluster 1 and "Western" wire agencies *did* cover "humanitarian" issues in a manner suggestive of the emergency imaginary between 2010 and 2020. Although, we raise questions about Calhoun's overly broad association of the emergency imaginary with "the West," given the different positioning of other European countries. Whilst our examination of non-Anglophone countries was less conclusive, we open new avenues for research about the hybridity of humanitarian reporting around the world and its relevance to the "politics of humanitarian journalism" (Scott, Wright, and Bunce 2021). That is, which events are portrayed as humanitarian "emergencies", what is portrayed as appropriate remedial action, who is represented as a legitimate humanitarian actor, and whose interests are ultimately served by such reporting.

Notes

1. Members are based in: Austria, Australia, Belgium, Canada, Germany, Japan, Spain, Sweden, Switzerland, the Netherlands, and the UK. The Irish Appeals Alliance has an informal affiliation with the network, as a precursor to joining. A US-based group, the Global Emergency Response Coalition, was formed in 2017, but closed in 2020.
2. See https://datashare.ed.ac.uk/handle/10283/8739.
3. Our Research Assistant, Andrew Jones, helped us code this corpus.
4. See https://datashare.ed.ac.uk/handle/10283/8739.
5. We removed duplicates by taking the text of a given news article and removing if jaccard similarity was >.8. This relatively conservative filtering approach ensures that no duplicate articles were retained in error.
6. These keywords are listed in tables contained in https://datashare.ed.ac.uk/handle/10283/8739.
7. As Rodriguez, Spirling, and Stewart (2023) demonstrate, the ALC approach does not rely on the frequent appearance of a given set of words within the text itself (as with dictionary methods). Instead, it relies only on the selected words capturing something of the target construct; so, all we need for ALC word embedding to work is that selected words appear in our reference embedding. After that, we take the vector averages of

surrounding context words to induce a unit-specific embedding measure of our target construct (here: emergency imaginaries).

8. To make the visualisation easier to interpret, in Figure 5 we only plot a selected number of pairs. A full list of pairwise comparisons can be found in https://datashare.ed.ac.uk/handle/10283/8739.
9. Al Jazeera English was an exception to this pattern, as we will discuss in the final findings section.
10. Israel had to be excluded from this analysis because we did not have enough digital content to compare with non-digital content (N> 10,000 articles).
11. We did not include transcripts from the broadcast output of these networks in our corpus, as these were not available through the databases we used for data collection.

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