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Enhancing Conflict Mediation Research: Introducing the Innovative Global Peace Actors Database (GLO-PAD)

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Abstract

In contemporary conflict resolution research, integrating diverse data sources and innovative methodologies is crucial for understanding mediation events and actors. This paper presents the Global Peace Actors Database (GLO-PAD), an event-based mediation database built through a pioneering and layered data collection process. Leveraging various sources such as the Barcelona Peace Talks in Focus Report, International Crisis Group's Crisis Watch, PA-X Peace Agreements Database, and reports from international organizations, GLO-PAD offers a nuanced view of mediation dynamics. Unlike previous datasets, GLO-PAD employs a large-scale web scraping approach, integrating the universe of potential mediation event sources to capture granular mediation event data worldwide from 1988 to present. It transcends political negotiations to encompass all conflict-related mediation, thus broadening temporal and spatial scope of previous mediation data attempts. GLO-PAD assesses mediator bias, identifies emerging actors, and utilizes semi-automated techniques for comprehensive data collection. This innovative approach addresses mediation's increasing fragmentation, providing valuable insights for conflict resolution scholarship and practice.

Keywords: *Conflict Mediation, Peacebuilding, Data Collection, Global Peace Actors Database, Semi-Automation, Innovative Methodologies.*

1. Introduction

Effective conflict resolution and peacebuilding efforts require a nuanced understanding of mediation events and the diverse actors involved. The Global Peace Actors Database (GLO-

PAD)[1] represents a pioneering initiative to compile and analyze mediation data from various sources, offering insights into the complexities of peace processes. This paper outlines the methodology behind GLO-PAD and its implications for advancing conflict resolution research.

The scope of this study encompasses all mediation events related to armed conflicts worldwide, as documented by the Uppsala Conflict Data Program (UCDP), spanning from 1988 to the present day. This comprehensive temporal and spatial scope distinguishes our dataset from previous efforts in conflict mediation research.

2. Contributions

Unlike previous datasets such as the African Peace Processes (APP), which focused solely on Africa, or the UCDP Third Party Actors dataset, which concluded in the early 2000s, our dataset covers mediation events from across the globe over the past three decades. This broader spatial and temporal scope allows for a more comprehensive understanding of conflict mediation dynamics on a global scale.

Previous datasets often overlooked mediation events beyond political negotiations or peace agreements. Our dataset aims to capture a wider range of mediation events, including economic, humanitarian, and political interventions. By doing so, we provide a more nuanced understanding of the various approaches to conflict resolution. Conflict mediation is undergoing a fragmentation evolution, with an increasing number of new actors and actor types entering the mediation realm, as well as an increasing of mediation events in a broader peace process. Our project sheds light on these emerging actors and their diverse roles in conflict resolution. For example, Figure 1 illustrates how various actors engaged in the Sudan Peace Process collaborate and their levels of involvement. Understanding these dynamics is essential for adapting mediation strategies to evolving conflict and peace landscapes.

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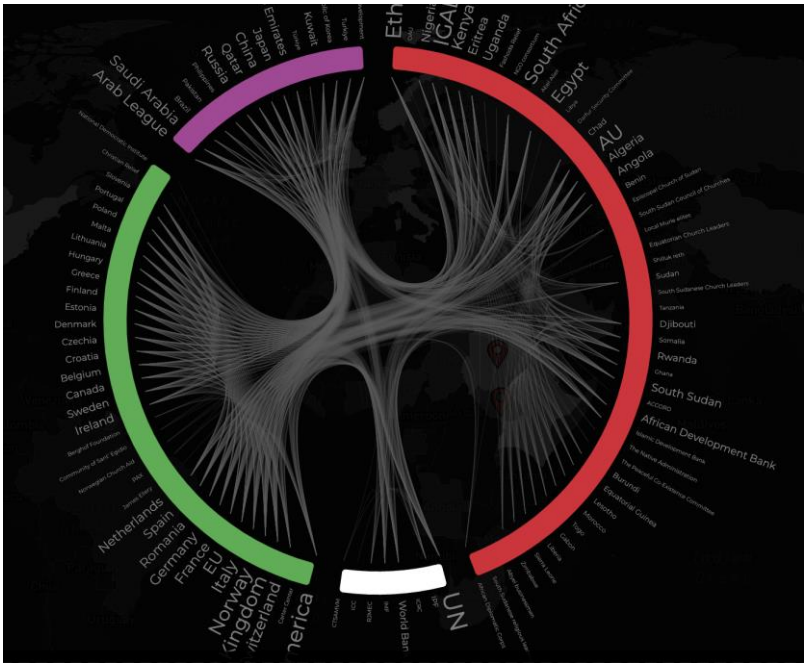

Figure 1. Third Party Actor Involvement Networks in the Sudan Conflict (1988-present). Data comes from the GLO-PAD visualization platform. The larger the actor name, the more mediation events they were engaged in. Red indicates regional actors; green indicates "global north" actors; white indicates international organizations; and purple indicates all "other" actors.

Another significant contribution of our study is the evaluation of mediator bias towards one of the conflict parties. Previous datasets failed to address this aspect, yet it plays a crucial role in shaping the outcomes of mediation efforts. By examining the level of bias exhibited by mediators, we enhance our understanding of the complexities involved in conflict resolution processes.

Our approach utilizes large-scale web crawling to capture extremely granular mediation event data from local news sources (among a vast array of other sources). This allows us to identify mediation attempts and actors that are not be captured by existing datasets or former data gathering methods. The inclusion of these previously overlooked actors is crucial for the development of conflict resolution scholarship and the formulation of effective peacebuilding strategies. For example, previous data fails to capture the levels of involvement in the conflict mediation process in Sudan from actors such as China, Russia, and smaller regional actors, whereas our data captures these comprehensively (see Figure 2).

Figure 2. Mapped Levels of State Actor Involvement in the Sudan Conflict (1988-present). Data comes from the GLO-PAD visualization platform. The "whiter" the country, the more mediation events they were engaged in. Pins identify points of conflict being referenced.

3. The Layered Approach to Data Collection

GLO-PAD employs a layered approach to data collection, beginning with the compilation of existing sources such as reports from Barcelona, the International Crisis Group, PA-X Peace Agreements Database, and international organizations. These sources provide a foundational framework for identifying key stakeholders and mediation events within conflicts. The following steps unfold in turn by gathering data on one conflict-country at a time in order to a careful and in-depth extraction of various actors and processes.

3.1. Step 1: Compilation of Existing Sources

The initial phase of data collection involves compiling a comprehensive list of existing sources that provide insights into conflict mediation efforts. This process begins with gathering information from institutions and organizations such as Universitat Autònoma de Barcelona and the International Crisis Group (ICG). These sources offer valuable reports and analyses that shed light on key actors, stakeholders, and mediation events within conflict zones.

The Peace Talks in Focus Report from Universitat Autònoma de Barcelona serves as a foundational resource by offering an initial roster of relevant actors involved in peace processes. While it provides a comprehensive list of actors and groups, it lacks detailed information on the collaborative dynamics among these entities. On the other hand, the ICG's Crisis Watch provides a broader perspective by presenting a detailed timeline of conflict events, including mediation efforts and agreements. This timeline offers precise dates for events, enhancing the detail of our dataset and aiding in contextualizing the broader conflict resolution process.

3.2. Step 2: PA-X Contribution

Following the compilation of initial sources, PA-X Peace Agreements Database contributes by providing a list of mediation events related to signing agreements. PA-X includes peace agreements, ceasefires, and related documents, allowing researchers to trace back mediation events leading up to these agreements. While PA-X primarily focuses on events related to agreement affirmations, it too offers insights into the actors associated with these agreements, enriching our dataset with additional information on third-party involvement and collaboration dynamics.

3.3. Step 3: Reports from IGOs

In the third step of the data collection process, reports from international organizations (IOs) such as the United Nations (UN) are gathered to obtain a detailed timeline of events within conflicts. Reports submitted to the United Nations Secretary-General (UNSG) provide in-depth insights into UN-led peace processes, offering comprehensive coverage of ongoing mediation efforts. Additionally, reports from other IGOs such as the African Union (AU) and the Intergovernmental Authority on Development (IGAD) offer detailed insights into mediation processes within conflicts, albeit with varying levels of systematic reporting compared to UNSG reports. These reports contribute to our understanding of mediation events, identify additional actors and groups involved, and provide context for the broader peace process.

3.4. Step 4: Insights from Country Experts

The final preparatory step involves consulting with country experts to identify any actors, groups, committees, agreements, or other relevant information that may have been missed in the previous steps. Country experts provide valuable insight into local or third-party stakeholders and offer additional context that enhances the completeness of the dataset. By collaborating with experts familiar with the conflict context, researchers ensure the thoroughness and accuracy of the data collection process.

4. Semi-Automation: Enhancing Data Collection Efficiency and Depth

In the subsequent phase of our data gathering process, steps 5 through 6 transition into a semi-automated approach aimed at enhancing the comprehensiveness and validity of our dataset. This approach capitalizes on innovative methodologies and cutting-edge technologies to expand the scope of data collection while maintaining rigorous standards of accuracy and reliability.

4.1. Step 5: Comprehensive Web Crawling for Source Aggregation

To initiate the semi-automation process, we employ an advanced web crawling technique based on Kalev Leetaru's methodology. This approach leverages machine learning algorithms to aggregate sources related to third-party mediation activities. Unlike traditional manual methods such as LexisNexis and ReliefWeb, our web crawling technique operates on a vast scale, scouring over 1 billion references per year across global media outlets, digitized books, academic literature, human rights archives, and raw closed captioning streams television, among others.

The web crawling process identifies instances where there is a mention of mediation-like activities involving third-party actors within the conflict countries. This initial data pull generates millions of observations, capturing a diverse range of mediation events and actors operating in various contexts. However, due to the underspecified criteria[2] and the real-time translation of machine learning outputs into over 65 languages, the extracted data often contains noise and irrelevant information, necessitating detailed filtering in the subsequent steps.

To pinpoint mediation-type events within the universe of potential sources, this project employs Google Cloud's Computer Vision capabilities. This involves harnessing Optical Character Recognition (OCR) to detect text in raw files, swiftly summarizing them for rapid comprehension of vast textual data. Furthermore, it harnesses the power of Document AI, a document understanding platform adept at extracting text and data from scanned documents. This conversion of unstructured data into structured information streamlines the in-depth analysis of mediation-related content. Moreover, the Custom Classifier via Cloud Vision AI is integrated to discern potential mediation-related events. By identifying geographic locations and detecting the presence of third-party actors external to the specified content, this classifier enhances the precision of potential mediation categorization, enriching the understanding of mediation dynamics within the analyzed data, and ultimately providing a "universe" of potential sources before the filtering process.

4.2. Step 6: Refinement of Source List through Keyword Filtering

Following the comprehensive web crawling process, the next step involves refining the initial source list to facilitate the manual coding of the mediation event database. This refinement process unfolds in several stages, each aimed at enhancing the relevance and accuracy of the dataset.

First, we establish generic search criteria encompassing terms such as "mediation," "negotiation," "peace talks," "summit," "host talks," "peace process," "peace agreement," and

2 Implemented in order to ensure no observations are neglected.

"ceasefire." These predefined keywords serve as filters to eliminate irrelevant data noise resulting from underspecified search criteria or references to unrelated topics such as climate talks.

Additionally, leveraging our detailed list of actors, agreements, processes, and groups derived from earlier steps, we identify specific references to these terms within the sources. This targeted approach enables us to capture additional mediation events and actors that may have been overlooked in the manual data collection process.

By refining the initial source list through keyword filtering, we aim to enrich the dataset with a more comprehensive list of events associated with existing peace actors and processes. This iterative process of data refinement ensures the accuracy and relevance of the dataset, laying the groundwork for manual cross-checking and analysis in the subsequent steps.

This process narrows down the pool of cases, grouping similar events together and assigning keywords associated with their sources. Consequently, a comprehensive yet precise set of sources is presented to the manual coder, who decides whether they should be included in our final dataset and how their unique information should be coded. Providing this extensive array of sources to the coder helps avoid the pitfalls of previous manual searches, which often resulted in excessive and unnecessary searching. It also presents data from a larger universe than a manual coder could realistically navigate. Nonetheless, involving a manual coder at this stage ensures data accuracy.

Through the semi-automation process, GLO-PAD achieves a balance between both depth by pulling from a more complete universe of sources and efficiency by filtering and collapsing data to create a manageable yet comprehensive dataset, harnessing the power of technology to expand the scope of data collection while maintaining the integrity and reliability of the dataset. This innovative approach represents a significant leap forward in conflict mediation research, enabling researchers to access a wealth of data previously inaccessible through traditional manual methods alone.

5. Conclusion and Future Directions

The Global Peace Actors Database (GLO-PAD) has significant implications for advancing conflict resolution research by providing researchers with a comprehensive dataset for analysis. By capturing a broad spectrum of mediation events and actors, GLO-PAD enables scholars to identify patterns, assess the effectiveness of mediation efforts, and inform policy decisions.

This work contributes to conflict resolution research by providing a comprehensive dataset that expands the temporal and spatial scope of previous efforts, includes diverse mediation events, evaluates mediator bias, identifies new mediation actors, and utilizes innovative data collection

methods. In doing so, we aim to advance knowledge in the field of conflict resolution and inform more effective peacebuilding interventions.

GLO-PAD represents a valuable resource for researchers and practitioners in the field of conflict resolution. By employing a layered approach to data collection and leveraging semi-automated techniques, GLO-PAD offers insights into the complexities of mediation processes, thereby contributing to our understanding of peacebuilding dynamics.

Moving forward, GLO-PAD will continue to evolve, incorporating additional sources and refining its methodologies to enhance the accuracy and reliability of the dataset. Collaborative efforts among researchers and practitioners will be essential for maximizing the utility of GLO-PAD and advancing conflict resolution research.

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