PEACE OPERATION DATA
Assessment, Analysis and Use

FINAL REPORT

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Final report of the 2021/22 project 'Peace Operation Data, Analytics, and Action', a collaboration between American University, the Folke Bernadotte Academy, the University of Oxford, and the Center on International Cooperation

FOREWORD

Over the past two decades, the United Nations (UN) has increased its data collection commitment to monitor and evaluate the effect of UN peace operations. The UN has been gathering systematic information about the composition and location of civilian, police, and military personnel in peace operations, their activities, their locations, and conflict-related events involving these personnel. The Action for Peacekeeping (A4P) initiative, launched by the Secretary-General in 2018, and its 2021 implementation strategy, Action for Peacekeeping + (A4P+), have further spurred those efforts. The A4P+ Plan details specific results and deliverables for each of the A4P+ priorities, and a standalone Monitoring Framework presents quantitative and qualitative indicators to measure progress toward each priority, and the impact of UN peace operations more generally.

At the same time, academic researchers skilled in quantitative methods have made significant progress in analyzing the implementation, process, and impact of peace operations, using publicly available data. Although both the UN and academics want to evaluate the effectiveness of peace operations, these two communities have relatively little interaction.

The 2021/22 project '**Peace Operation Data, Analytics, and Action**' – a collaboration between American University, the Folke Bernadotte Academy, the University of Oxford, and the Center on International Cooperation – aimed to fill this gap and bring together scholars and UN officials to identify best practices in current data-generation and analysis with important implications for UN peacekeeping and sustaining peace priorities. The project began with a workshop dedicated to providing an overview of the academic scholarship on peace operations and a discussion of challenges around the A4P+ Monitoring Framework. This was followed by three workshops on peacekeeping data and analytical methods: Third-Party Data; Community-Level Perception Surveys (presented by Dr. Patrick Vinck); and Artificial Intelligence, Natural Language Processing, and Text-as-Data (delivered by Dr. Margaret J. Foster). A final workshop reflected on the previous workshop discussions and examined the relationship between A4P, A4P+, decision-making, and peace operation effectiveness.

This final report of the 'Peace Operation Data, Analytics, and Action' project reflects and elaborates on the topics discussed during the workshops. It explores questions regarding the identification, collection, evaluation, and analysis of data, with the aim to improve how data is used and understood to monitor UN peace operations.

OVERVIEW OF THE REPORT

Section 1: From Concept to Measurements

Visualizes and exemplifies a stylized research design process. Starting with the idea of peacekeeping 'impact', it shows how to choose measures that reasonably link this concept with real-world indicators.

Section 2: Academic Data to Analyze Peacekeeping

Gives an overview of the state-of-the-art of third-party data compiled by quantitative peacekeeping scholars that can be used to study various characteristics of peace operations as well as their impact on a range of outcomes.

Section 3: Data Quality Challenges in Peacekeeping Data

Introduces the concept of 'data quality', its constitutive dimensions, explains how it might impact analytics, and provides guidance on how to evaluate the fitness for use of a particular dataset given the task at hand.

Section 4: Methods for Analyzing Peacekeeping Data

Gives an overview of and defines the steps in a typical data analytics process.

Appendix

- A) Comprehensive list of third-party datasets on UN peace operations
- B) Comprehensive list of third-party datasets on outcomes
- C) Slides from virtual workshop 'Community-level Perception Surveys', presented by Dr. Patrick Vinck on October 28, 2022
- D) Slides from virtual workshop 'Artificial Intelligence (AI), Natural Language Processing (NLP), and Text-as-data', presented by Dr. Margaret J. Foster on November 16, 2022
- E) References

1) FROM CONCEPT TO MEASUREMENTS

In this section, we explain and visualize a stylized research design process. Starting with the idea of peacekeeping 'impact', we describe how to choose measures that reasonably link this concept with real-world indicators.

➢ Step 1: From Background Concept to Systematized Concept

Before the impact of peace operations can be monitored and evaluated, it first needs to be clear what comprises 'good' peacekeeping performance. Are peacekeepers performing well when certain outcomes are achieved? This could, e.g., be the case when peacekeepers fulfil the mandates authorized by the UN Security Council and/or when violent conflict is mitigated and prevented. On the other hand, peacekeeping performance might be deemed 'good' when missions exhibit certain characteristics – for example, when peacekeepers are well-trained. **Conceptualization** – i.e. engaging with and choosing among the diverse meanings of 'good' performance – is a crucial first step that sets the scene for subsequent data-driven analytics. Without explicitly defining when peacekeepers are considered to be effective, it is challenging to develop qualitative or quantitative indicators and evaluate their suitability for the task at hand.

➢ Step 2: From Systematized Concept to Measurements

Once the dimensions of peace operation effectiveness have been selected and defined, observable implications can be developed through the selection of suitable measures which link the conceptual ideas about performance with real-world indicators. For example, when conflict mitigation and/or prevention is a dimension of 'good' performance, conflict intensity might be a reasonable indicator to evaluate peacekeeping effectiveness. On the other hand, when the fulfilment of women's rights is an important dimension of impact, the degree of legal institutional protection for women might be a suitable measure. In general, indicators are only useful when they correlate with and represent the main ideas for the task at hand and are valid as well as reliable. Valid indicators measure what they are supposed to measure, whereas reliable indicators generate consistent results.

➢ Step 3: From Measurements to Scoring Cases

In the last step and depending on the type of indicator, **scoring** procedures are applied to the observations under study to produce values that can be meaningfully interpreted. As mentioned above, indicators for peacekeeping performance can be based on qualitative as well as quantitative information. For example, an indicator like conflict intensity might contain information on the number of battle fatalities over a certain time period. Then again, an indicator measuring civilians' reliance on formal institutions in case of disputes might be based on more qualitative information. For instance, individual preferences extracted from on-the-ground perception surveys or via sentiment analysis of local social media posts.

The diagram below further visualizes this stylized research design process.

1) FROM CONCEPT TO MEASUREMENTS: A STYLIZED PROCESS

Background Concept[1]
The broad constellation of meanings and understandings associated with a given concept.

➢ **Step 1: Conceptualization**
Formulate a systematized concept with reference to the background concept.

- Background concepts are normally associated with a variety of meanings. A careful examination of these meanings helps clarify different understandings.
- When forming a systematized concept, a choice must be made among these options and the specific meaning defined.
- Emphasizing different aspects of a background concept is common. Any choice can be justified but must be linked to the goals and context of the task at hand. !

- **Example**: Peacekeeping 'impact' / 'effectiveness'

Certain outcomes are achieved
- Mandates are implemented
- Violent conflict is mitigated/prevented
- Peaceful societies are built

Missions have certain attributes
- Equipment is adequate
- Peacekeepers are well-trained
- Troop composition is diverse

Systematized Concept
A specific formulation of a background concept; commonly involves an explicit definition.

▪ **Step 2: Operationalization**
Develop measures that link the systematized concept to real-world indicators.

- **Example**: "Peacekeeping is effective when it mitigates or prevents violent conflict"
- **Possible indicators:**[2]

Conflict intensity
Absence/low levels of violence
- Battle-related deaths
- Civilian casualties

[1] This visualization is taken from Adcock and Collier, 2001, and was adjusted for the purposes of this report.
[2] For a more thorough overview of this conceptual understanding in quantitative peacekeeping research see Kroeker and Ruggeri, 2022.

	**Peace duration** *Time between conflict episodes*	• Length of peace spells (days/months/years)
	**Rule of law** *Reliance on formal institutions for dispute resolution*	• Individual preferences for using (in)formal authorities
	**Women's rights** *Degree of institutional protection for women*	• Existence of rules that prevent/punish sexual exploitation

- The suitability of an indicator is evaluated in relation to its validity and reliability.
- Valid indicators measure what they are supposed to measure. They:
  - (1) Capture the underlying systematized concept;
  - (2) Produce values that correlate with similar measures of the same concept; and
  - (3) Confirm common hypotheses when used.
- Reliable indicators generate consistent values. They:
  - (1) Produce the same values if scoring procedures are repeated over time;
  - (2) Or by different people.
- Invalid and unreliable indicators should **not** be used.

!

Measurements
Also called "indicators". Includes any qualitative or quantitative scoring procedure that is systematic.

- **Step 3: Score cases**
  Apply selected scoring procedures to observations to produce meaningful values.

- Scoring procedures can be based on different types of data. Some measures encode purely mathematical values, whereas others encode more qualitative information.
- Qualitative, or categorical, indicators come in different forms. They represent one or more mutually exclusive categories within one indicator which can be meaningfully ordered.

Scores for cases
The values for cases generated by a particular measure. These include both numerical values and the results of qualitative classification.

2) ACADEMIC DATA TO ANALYSE PEACEKEEPING

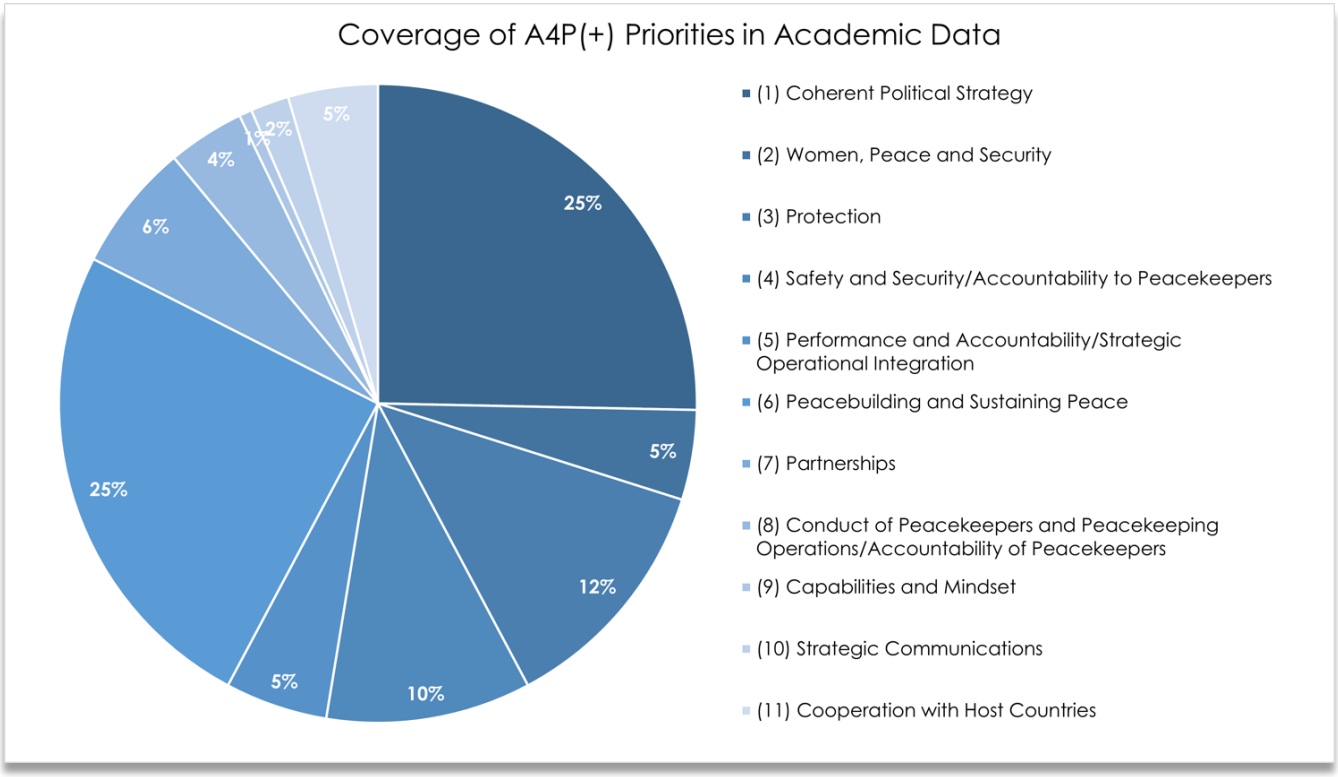
Data-driven, quantitative studies on peace operations have been flourishing and growing in the last two decades. The expansion of experts and analyses has led to the creation of several new datasets and numerous empirical findings. Since the early 2000s, we know much more about the structure and organization of peace operations, and their impact on peace and security.

Many of the current data-generating efforts in academic research can be leveraged by UN initiatives to analyze and strengthen UN peacekeeping and sustaining peace priorities. In this section, we:

- Give an overview of the state of the art of third-party peacekeeping data used by quantitative scholars and their main findings;
- Highlight the usefulness of academic large-N data for UN initiatives that aim to strengthen peacekeeping as a tool for conflict management, including A4P and A4P+.

As an overview, the figure below shows the proportion of academic data suitable to study and evaluate each priority of the UN's A4P and A4P+ framework. It is based on the **78 most widely used datasets** in quantitative scholarship on peacekeeping. A detailed breakdown linking each dataset to A4P/A4P+ priorities can be found in the Appendix. We found that academic and other third-party data can be particularly valuable to assess progress on priorities relating to a collective political strategy, peacebuilding and sustaining peace, and the protection offered by peace operations.

Figure 2.1 Coverage of A4P(+) Priorities in Academic Data

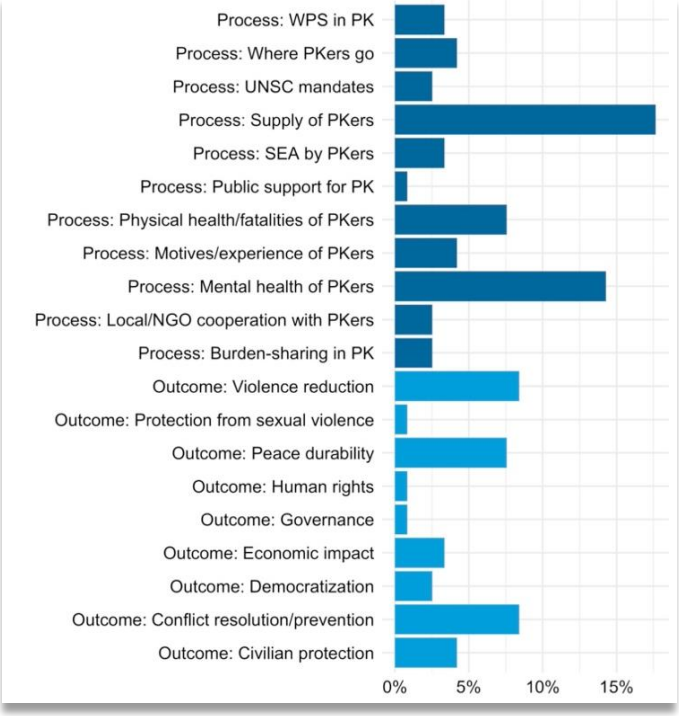


A) ACADEMIC EFFORTS AT STUDYING PEACEKEEPING USING QUANTITATIVE DATA

WHAT ACADEMICS STUDY

- This figure depicts the dimensions of peacekeeping that have been studied with quantitative data. It is based on an analysis of the **120 most widely read and cited** quantitative academic research articles published between 2000–2019.
- One third of the articles on peace operations focus on outcomes (e.g., violence reduction, conflict prevention, economic development, protection of civilians).
- Two thirds of the articles focus on the process or organization of peace operations (e.g., supply of peacekeepers, peacekeeper fatalities, UNSC mandates).

Figure 2.2 Topics in Quantitative Peacekeeping Research



EXISTING ACADEMIC RESEARCH FINDS THAT[1]

Peace/conflict outcomes:[2]

- UN peacekeeping reduces the duration of conflict;
- Produces more durable peace;
- Geographically contains armed conflict;
- Protects civilians;
- Reduces battle-related violence;
- And lowers the odds of genocide over the long term.

More mixed findings for non-conflict outcomes:[3]

- UN Peacekeeping seems to promote democratic processes;
- Stimulates economic demand during deployment, but economic growth rapidly declines when missions end;
- Only strengthens the rule of law during periods of peace, not while conflict is ongoing;
- Improves public health, e.g., maternal health outcomes and access to services;
- But no significant effect on other development indicators like literacy rate.

[1] For an overview, see Di Salvatore and Ruggeri, 2017; Walter, Howard and Fortna, 2020.
[2] Beardsley, 2011; Gleditsch and Beardsley, 2015; Hultman, Kathman and Shannon, 2013 and 2014; Ruggeri, Dorussen and Gizelis, 2017.
[3] Blair, Di Salvatore and Smidt, 2022; Beber et al., 2019; Blair, 2021; Gizelis and Cao, 2021; Kim 2017.

B) ACADEMIC DATA ON PEACE OPERATIONS

- As quantitative studies on peace operations have flourished, data collection efforts have followed suit. Many of these datasets are based on UN documents, e.g., personnel summaries, UNSC resolutions, or SG reports, but have been processed by either human coding or automated machine coding to allow for data-driven analysis.
- Early data collection efforts focused on the presence of peace operations and personnel numbers.
- More recently, we have seen an extension to other facets of peacekeeping and more fine-grained data. New facets include leadership features, tasks assigned to missions, violence against peacekeepers and deployment speed. Finer-grained data arrived at the subnational level, gender-disaggregated, at the monthly level and even studying events instead of larger temporal spells.
- From a mere study of the presence of peacekeepers, we now know much more about the effects of size, composition, and actions of peacekeepers.

Table 2.1 Sample of Datasets on UN Peace Operations

Topic	Dataset	Content	Scope	Unit of Analysis	Sources	Regular Updates
Supply of Peace-keepers	International Peace Institute (IPI) Data	Uniformed personnel contributions (troop, police, observer)	UN POs; 1990–2018	Diverse, i.e., country-month, mission-month	UN's monthly mission personnel summaries	yes
Mandates	Peace-keeping Mandates (PEMA) Dataset	Initial and revised PO mandates, covering 39 different tasks	UN POs (Africa); 1991–2017	PO-UNSC resolution	UNSC resolutions	no
Subnational Deployment	Geocoded Peace-keeping Operations (Geo-PKO) Dataset	PO deployment at local level, size, troop type, headquarters, T/PCCs	UN POs (Africa); 1994–2020	GIS coordinates-month	Mission deployment maps; UNSG mission progress reports	yes
Safety of Peace-keepers	UCDP Peace-makers at Risk (PAR) Dataset	Geo-referenced events on violence against peacekeepers	UN & non-UN POs (Africa); 1989–2009	Event	Factiva (News archive database); UN, NGO and open-source reports	no
Peace-building	UN Peace Initiatives (UNPI) Dataset	Initiatives aimed at conflict prevention, crisis management, mediation, peacekeeping and -building	UN; 1946–2015	Peace initiative; initiative-mandate; initiative-year	Repertoire of the Practices of the Security Council; UNGA Yearly Reports	no

C) OUTCOME & PEACEKEEPING PERFORMANCE DATA

- Whether peacekeeping works has become one of the most important questions studied by quantitative researchers in the past decade. Predominantly based on analyses of easily accessible and comprehensive 'off-the-shelf' datasets, peacekeeping performance has been evaluated against a wide range of outcomes.
- Earlier studies focused on the ability of peacekeepers to manage conflict, that is to curb violence, increase the duration of post-conflict peace or prevent the recurrence of conflict.
- More recent work focuses on the impact of peacekeeping on more sustainable forms of peace, including democratization processes, the rule of law and economic development.
- Challenges remain regarding the availability of data on indicators of positive peace and fine-grained data, as well as a clear understanding about the interdependency of mission tasks.

Table 2.2 Sample of Datasets on Outcomes

Topic	Dataset	Content	Scope	Unit of Analysis	Sources	Regular Updates
Sexual Violence	Sexual Violence in Armed Conflict (SVAC) Dataset	Conflict-related sexual violence committed by armed actors	Global; 1989–2019	Conflict-actor-year	US State Department, Amnesty International, Human Rights Watch reports	yes
Conflict	Uppsala Conflict Data Program (UCDP)	Various datasets on conflict, incl. armed conflict; conflict termination; non-state actor; one-sided violence; georeferenced events; dyadic data	Global; 1945/ 1989–2020	Conflict-group-year; GIS coordinates-month	Several, incl. global news, local news, NGO reports	yes
Political Violence	Social Conflict Analysis Database (SCAD)	Forms of social conflict, incl. protests, riots, strikes, inter-communal conflict, government violence against civilians	Africa, Latin American and the Caribbean; 1990–2017	Date-locality	Lexis-Nexis	yes
Terrorism	Global Terrorism Database (GTD)	Information on domestic and international terrorist attacks	Global; 1970–2019	GIS coordinates-month	News	yes
Democracy	Varieties of Democracy (V-Dem)	Indicators on electoral, liberal, participatory, deliberative and egalitarian democracy	Global; 1789–2020	Country-year	Third-party data; country experts	yes

D) TIPS WHEN USING THIRD-PARTY DATA

Selecting a suitable dataset to score cases depends on the objectives of the study, the research question, and the overall requirements of the project. When choosing from existent academic and other third-party data, several factors need to be taken into consideration regarding the suitability and limitations of the data:

- **Relevance**: Relevance is concerned with the degree to which the data meet the needs of the data user. It looks at whether data are applicable to measure the concept(s) being studied, and whether they are sufficiently complete, consistent, and uniform to fulfil the task at hand.

  ? Are the data suitable for the intended task?

- **Scope**: Scope looks at the amount of data or potential reach available. Datasets can vary, particularly with regard to their temporal and geographic scope. If a dataset is to be used over a longer period of time, a related factor to consider is whether the data is regularly updated and, if so, in which intervals.

  ? Is the available temporal and geographic scope and update frequency sufficient for the purpose of the analysis?

- **Aggregation**: Aggregation refers to the analytical level at which data are collected or presented – both in geographical (e.g., national vs local) and temporal (e.g., year vs month) terms. Data aggregation can be problematic as it can obscure individual effects of interventions or policies.

  ? Is the level of data aggregation – geographic area and time – appropriate for the assessment that needs to be made?

- **Source**: A data source is the place or person from where the data that is being used originates. Datasets might source their data from other publicly available datasets, population surveys, expert surveys, or news reports. Third-party data providers are not necessarily collecting the data on their own; and sources might vary from variable to variable.

  ? Where does the data come from; and is the source reliable?

- **Usability**: Data usability considers the extent that all necessary data are easily accessible, that definitions are clear and the data is easily interpretable; the ability for a user to derive useful information; and the extent to which data can contribute to actionable analytics while reducing the risk of misinterpretation.

  ? Is the data easily accessible, understandable, and transformable for actionable use?

- **Quality**: Data quality assesses the conditions of the data based on factors such as accuracy, reliability, completeness, comparability, and timeliness. Measuring data quality levels can help to identify data errors and biases and assess whether the data serve their intended purpose.

  ? Are the data of a high enough quality?

3) DATA QUALITY CHALLENGES IN PEACEKEEPING DATA

Data quality is a critical issue for data-driven analysis. Accessible, complete, and accurate data are a key component for sound analysis, whereas poor-quality input data produce faulty and misguiding research and can lead to poor policy recommendations.

Data quality describes a certain condition of a given dataset, its 'fitness for use' or, put differently, the 'degree to which dimensions of data meet certain requirements.' Determining whether a dataset is of high quality involves examining its characteristics and deciding whether it meets the needs of the task at hand. In the following, this section introduces key dimensions of data quality;[1] it explores one example of data quality challenges – completeness – in more detail; and it provides guiding questions and common data quality checks.

A) DIMENSIONS OF DATA QUALITY

Accuracy	The extent to which data are correct and reliable. Or if the data values stored in the database correspond to real-world values.
Completeness	The degree to which values are included for all cases in a data collection effort (i.e., not missing). Or the extent to which data are of sufficient breadth, depth, and scope for the task at hand.
Comparability	The degree to which data values have the same definition and are measured in the same way across cases.
Consistency	The degree to which data values of a set of attributes comply with a rule.
Timeliness	The degree to which data is up to date.
Uniqueness	Uniqueness is a measure of the number of duplicates; data is unique if it appears only once in a data set.
Validity	Validity is concerned with whether an indicator measures what it is supposed to measure; measurement validity concerns the link between empirical reality and concepts.

[1] For further dimensions of data quality, see: Black and van Nederpelt, 2020; Pipino, Lee and Yang, 2002; Wand and Wang, 1996; Wang and Strong, 1996.

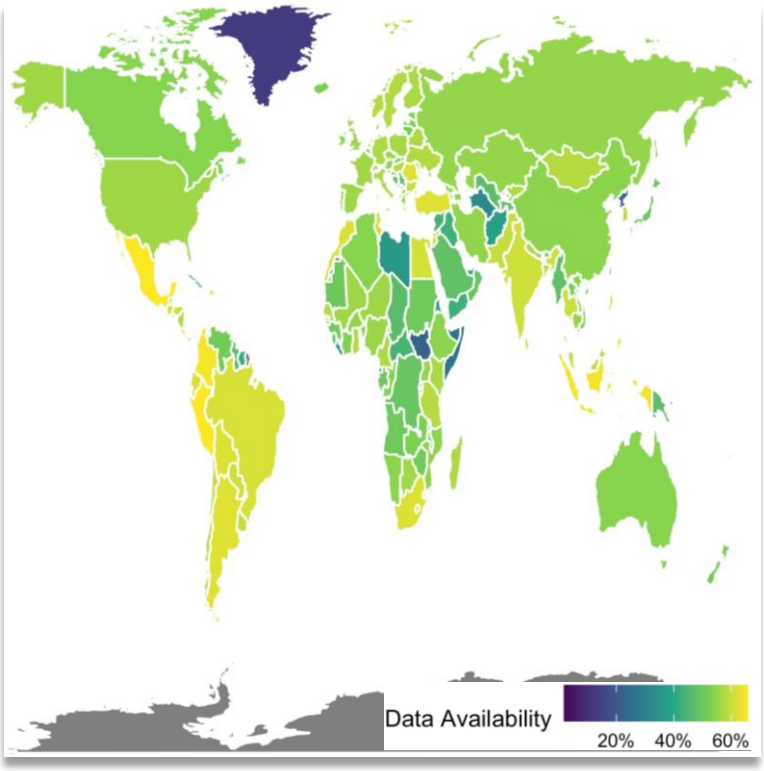
B) EXAMPLE FOR DATA QUALITY CHALLENGES: COMPLETENESS

Lack of data availability and missing data are common challenges in the social sciences.

Take the World Bank's World Development Indicators (WDI) as an example. The WDI are the most extensive, current, and reliable source for socio-economic and development data. They contain over 1,443 indicators for 266 countries and regional and global aggregations over the 1960–2020 period (as of March 2022). However, 66% of its possible observations are missing, which drops to 53% for the post-Cold War period.

Figure 3.1 maps the average percent of data completeness for each country (over all indicators, between 1989–2020). The highest level of data completeness is found in South America with around 55%, the lowest level in Africa with 40%, and the Western countries lie in between.

Figure 3.1 Data Completeness for World Bank's WDI[1]



Missing observations do not only limit the available sample and data for the analysis, but, even more importantly, can also entail issues of non-random missing data. This means that there is a systematic relationship between the propensity of missing values and other observed variables, or even between the propensity of a value to be missing and its values.

Understanding why observations are missing is important for handling the remaining data correctly. A sample may still be representative of the population if data are missing completely at random. But non-random, systematically missing data may lead to biased analysis. Thus, it is important to check whether data are missing due to some specific events, features of location, or other possible systematic biases.

Several options exist for dealing with missing data. Basic approaches include analysis of the complete cases and associated weighting methods, and methods that impute the missing values. More principled methods are based on statistical models and likelihood-based approaches.

[1] This figure is drawn from Meiske and Ruggeri, 2022.

C) GUIDELINES FOR ASSESSING DATA QUALITY

GUIDING QUESTIONS FOR SELECTING AND INSPECTING DATA INCLUDE:

- Are the data produced over time and across cases measured **consistently**?
- Can we **compare** the data collected over time and in different peace operations?
- Are our data complete or are there **missing observations**?
- Are the data missing due to some specific events, features of location, or other possible **systematic biases**?
- What is the degree of **measurement error** in our data?
- Are the phenomena that we want to assess for peace operations' activities and outcomes measured with **apt proxies**?

COMMON DATA QUALITY CHECKS INCLUDE:

- Check that each data record only occurs once in the dataset used and identify **potential duplicates**.
- Ascertain the primary data sources, data collection method(s), and definitions to determine whether data are **comparable over time and place**.
- Check how recent the latest data entries are or when they were **last updated** to determine timeliness.
- Apply **formatting checks**, e.g., for mismatched data types or variations in how values are entered, to ensure consistency.
- Check for **missing values** and **null values** to identify and fix issues of data completeness.
- In case of missingness, assess whether data are **missing at random** or not by exploring correlations with related variables and trends between groups and over time.
- Examine and/or **plot the data** distribution for each variable to assess integrity.
- Look for **outliers**, or extreme values.
- Evaluate how closely the **data correlate** with other, related measures to test for accuracy and validity.
- **Take a random sample** of the data and **visually inspect** it.

4) METHODS FOR ANALYSING PEACEKEEPING DATA

Information related to peace operations can be leveraged via **data analytics**. Data analytics is the process of extracting relevant and actionable information from data in view of a particular decision-making problem. Analyzing data is especially helpful to:

- Understand what happened (description);
- Why it happened (diagnosis);
- What might happen in the future (prediction); and
- What should be done about it (recommendation).

STYLIZED DATA ANALYTICS PROCESS

1. Define what type of data is needed, keeping in mind what measures have been chosen to approximate the systematized concept for the task at hand.

2. Collect the necessary data. Multiple approaches exist:
   - Hand-coding: *Manually collect information from online as well as offline sources*
   - Natural language processing: *Use algorithms that understand human language and turn text into data*[1]
   - Surveys: *Administer new information for task at hand via direct participation of a specified population*[2]

3. Inspect, clean, and prepare the data collected for subsequent analysis. Make sure to ascertain the quality of the data collected (see Section 3).

4. Analyze and interpret the data, using different techniques:

(1) Description	• Visualize key indicators (charts, graphs, maps, dashboards)
(2) Diagnosis	• Explore relation between indicators via statistical analysis
(3) Prediction	• Simulate scenarios based on historic patterns and current events
(4) Recommendation	• Based on results of preceding types of data analytics, what ought to be the best course of action?

[1] See Appendix D for further information on how these text-as-data techniques work.
[2] See Appendix C for further information on how to administer community-level perception surveys.

APPENDIX

A) COMPREHENSIVE LIST OF THIRD-PARTY DATASETS ON UN PEACE OPERATIONS

A4P(+) Priority	Topic	Dataset	Link
A4P 3: protection; A4P+ 2: strategic & operational integration; A4P 7: cooperation with host countries	(Sub-national) Deployment	Geocoded Peacekeeping Operations (Geo-PKO) Dataset	https://www.pcr.uu.se/data/geo-pko/
A4P 3: protection; A4P+ 2: strategic & operational integration; A4P+ 7: cooperation with host countries	(Sub-national) Deployment	Robust African Deployment of Peacekeeping Operations (RADPKO)	https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/BQU5VD
A4P+ 3: capabilities & mindset	(Sub-national) Deployment	Peace Operation Deployment Speed	https://www.prio.org/journals/jpr/replicationdata
A4P 7: partnerships; A4P+ 1: coherent political strategy	(Sub-national) Deployment	Third-Party Peacekeeping in Intrastate Disputes	https://uca.edu/politicalscience/dadm-project/dadm-data-sets/
A4P 7: partnerships; A4P+ 1: coherent political strategy	(Sub-national) Deployment	Military and Non-Military Interventions Dataset (MILINDA)	https://lehrstuhlib.uni-goettingen.de/sonstiges/milinda/
A4P 7: partnerships; A4P+ 1: coherent political strategy	(Sub-national) Deployment	International Military Intervention (IMI) Data	https://www.k-state.edu/polsci/intervention/
A4P 1: politics; A4P+ 6: strategic communications	Mandates	Tasks Assigned to Missions in their Mandates (TAMM)	http://www.gabriellalloyd.com/tamm
A4P 1: politics; A4P+ 6: strategic communications	Mandates	Peacekeeping Mandates (PEMA) Dataset	[available soon]

A4P 2: women, peace and security	Mandates	Gender Mainstreaming in UNPKO Mandates Dataset	https://www.tandfonline.com/doi/figure/10.1080/13533312.2016.1195267?scroll=top&needAccess=true
A4P 1: politics; A4P 7: partnerships; A4P+ 1: coherent political strategy; A4P+ 6: strategic communications	Mandates	Peace Operation Mandates (POM) Data	[available soon]
A4P 3: protection; A4P 5: performance and accountability	Supply of Peacekeepers	International Peace Institute (IPI) Data	https://www.ipinst.org/providing-for-peacekeeping-database
A4P 3: protection; A4P 5: performance and accountability	Supply of Peacekeepers	UN Peacekeeping Personnel Data Project	https://kathmanundata.weebly.com/
A4P 3: protection; A4P 5: performance and accountability	Supply of Peacekeepers	UN PO Personnel Shortfall Data	https://www.prio.org/journals/jpr/replicationdata
A4P 7: partnerships; A4P+ 1: coherent political strategy	Supply of Peacekeepers	International Institute for Security Studies (IISS) Military Balance	https://www.iiss.org/publications/the-military-balance-plus
A4P 7: partnerships; A4P+ 1: coherent political strategy	Supply of Peacekeepers	SIPRI Multilateral Peace Operations Database	https://www.sipri.org/databases/pko
A4P 7: partnerships; A4P+ 1: coherent political strategy	Supply of Peacekeepers	Third-Party Peacekeeping in Intrastate Disputes	https://uca.edu/politicalscience/dadm-project/dadm-data-sets/
A4P 7: partnerships; A4P+ 1: coherent political strategy	Supply of Peacekeepers	UN & non-UN Peacekeeping Dataset	https://www.corinnebara.net/data/

A4P 3: protection; A4P 4: safety & security; A4P 5: performance & accountability	Composition	UN Peacekeeping Mission Composition Data	https://www.cambridge.org/core/journals/british-journal-of-political-science/article/kinds-of-blue-diversity-in-un-peacekeeping-missions-and-civilian-protection/54C5B7FB27C145335952A52592221DCD#supplementary-materials
A4P 3: protection; A4P 4: safety & security; A4P 5: performance & accountability	Composition	UN Peacekeeping Cultural and Social Composition Data	https://journals.sagepub.com/doi/suppl/10.1177/0022002719826115
A4P 3: protection; A4P 5: performance & accountability	Leadership	Leadership Accountability in UN Peacekeeping Data	https://journals.sagepub.com/doi/suppl/10.1177/00220027211028989
A4P 4: safety & security; A4P+ 4: accountability to peacekeepers	Safety of Peacekeepers	Peace Operations Data Set (PODS)	https://www.smallarmssurvey.org/database/peace-operations-data-set-pods
A4P 4: safety & security; A4P+ 4: accountability to peacekeepers	Safety of Peacekeepers	UCDP Peacemakers at Risk (PAR) Dataset	https://www.prio.org/journals/jpr/replicationdata
A4P 4: safety & security; A4P+ 4: accountability to peacekeepers	Safety of Peacekeepers	UN fatalities	https://journals.sagepub.com/doi/suppl/10.1177/0738894216686789
A4P 8: conduct of peacekeepers and peacekeeping operations; A4P+ 5: accountability of peacekeepers	SEA by Peacekeepers	Sexual Exploitation and Abuse in Peacekeeping Missions Data	https://www.prio.org/journals/jpr/replicationdata
A4P 8: conduct of peacekeepers and peacekeeping operations; A4P+ 5: accountability of peacekeepers	SEA by Peacekeepers	Sexual Exploitation and Abuse by Peacekeepers (SEAP) Dataset	https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/CRQLIU

A4P 1: politics; A4P 6: peacebuilding and sustaining peace	Peace-building	UN Peace Initiatives (UNPI) Dataset	https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/GHTF59
A4P 6: peacebuilding and sustaining peace	Peace-building	UN Peacekeeping Election-Education Events in Côte D'Ivoire	https://www.prio.org/journals/jpr/replicationdata
A4P 6: peacebuilding and sustaining peace	Peace-building	UN Peacekeeping Intergroup Dialogue Activities in Côte d'Ivoire	https://journals.sagepub.com/doi/suppl/10.1177/0022002719859631
A4P 6: peacebuilding and sustaining peace	Peace-building	UN Peacekeeping Election Activities Data	https://journals.sagepub.com/doi/suppl/10.1177/0738894220960041
A4P 6: peacebuilding and sustaining peace	Peace-building	UN Peacekeeping Rule of Law Activities Data	https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/NRRVJ3

B) COMPREHENSIVE LIST OF THIRD-PARTY DATASETS ON OUTCOMES

A4P(+) Priority	Topic	Dataset	Link
A4P 1: politics	Conflict	Armed Conflict Location & Event Data Project (ACLED)	https://acleddata.com/data-export-tool/
A4P 1: politics; A4P 3: protection; A4P 6: peacebuilding and sustaining peace	Conflict	Uppsala Conflict Data Program (UCDP) datasets	https://ucdp.uu.se/downloads/
A4P 1: politics; A4P 6: peacebuilding and sustaining peace	Conflict	Heidelberg Institute for International Conflict Research (HIIK)	https://hiik.de/data-and-maps/datasets/?lang=en
A4P 1: politics; A4P 7: partnerships; A4P+ 1: collective coherence behind a political strategy	Conflict, diplomacy	Diplomatic Intervention and Civil War data	https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/24822
A4P 6: peacebuilding and sustaining peace	Democracy	Polity V	https://www.systemicpeace.org/inscrdata.html
A4P 2: women, peace and security; A4P 6: peacebuilding and sustaining peace	Democracy	Varieties of Democracy (V-Dem) Research Project	https://www.v-dem.net/vdemds.html
A4P 6: peacebuilding and sustaining peace	Democracy, economy	Bertelsmann Transformation Index (BTI)	https://bti-project.org/en/downloads
A4P 6: peacebuilding and sustaining peace	Democracy, political rights	Freedom House Index	https://freedomhouse.org/reports/publication-archives
A4P 2: women, peace and security; A4P 6: peacebuilding and sustaining peace	Development	Clio Infra	https://clio-infra.eu
A4P 6: peacebuilding and sustaining peace	Development	Gapminder	https://www.gapminder.org/data/

A4P 1: politics; A4P 3: protection; A4P 6: peacebuilding and sustaining peace	Displaced persons	Forcibly Displaced Populations	https://www.systemicpeace.org/inscrdata.html
A4P 1: politics; A4P 3: protection; A4P 6: peacebuilding and sustaining peace	Displaced persons	The Refugee Project	https://therefugeeproject.org/#/2020
A4P 1: politics; A4P 3: protection; A4P 6: peacebuilding and sustaining peace	Displaced persons	Internal Displacement Monitoring Centre (IDMC)	https://data.humdata.org/organization/international-displacement-monitoring-centre-idmc
A4P 6: peacebuilding and sustaining peace	Economy	Penn World Table	https://www.rug.nl/ggdc/productivity/pwt/?lang=en
A4P 6: peacebuilding and sustaining peace	Economy	Maddison Project Database	https://www.rug.nl/ggdc/historicaldevelopment/maddison/releases/maddison-project-database-2020
A4P 1: politics; A4P 3: protection; A4P 6: peacebuilding and sustaining peace	Elections	National Elections Across Democracy and Autocracy (NELDA)	https://nelda.co/#access
A4P 1: politics; A4P 3: protection; A4P 6: peacebuilding and sustaining peace	Electoral violence	Deadly Electoral Conflict Dataset (DECO)	https://journals.sagepub.com/doi/suppl/10.1177/00220027211021620
A4P 1: politics; A4P 3: protection; A4P 6: peacebuilding and sustaining peace	Electoral violence	Electoral Contention and Violence (ECAV)	https://ecavdata.org/data-access/
A4P 2: women, peace and security; A4P 3: protection; A4P 6: peacebuilding and sustaining peace	Gender	WomanStats Project	https://www.womanstats.org/data.html

A4P 4: safety and security; A4P+ 4: accountability to peacekeepers	Governance	Global Corruption Barometer	https://www.transparency.org/en/gcb
A4P 4: safety and security; A4P+ 4: accountability to peacekeepers	Governance	Corruption Perceptions Index	https://www.transparency.org/en/cpi/2020
A4P 6: peacebuilding and sustaining peace	Governance	Ibrahim Index of African Governance (IIAG)	https://iiag.online/downloads.html
A4P 2: women, peace and security; A4P 6: peacebuilding and sustaining peace	Governance	Quality of Government Standard Dataset	https://www.gu.se/en/quality-government/qog-data/data-downloads/standard-dataset
A4P 2: women, peace and security; A4P 6: peacebuilding and sustaining peace	Health	Demographic and Health Surveys (DHS)	https://dhsprogram.com/data/
A4P 6: peacebuilding and sustaining peace	Human rights	Cingranelli-Richards (CIRI) Human Rights Data Set	https://dataverse.harvard.edu/dataverse/cirihumanrightsdata
A4P 1: politics; A4P 6: peacebuilding and sustaining peace	Human rights	Political Terror Scale (PTS)	https://www.politicalterrorscale.org/Data/Download.html
A4P 3: protection; A4P 6: peacebuilding and sustaining peace	Human trafficking	Human Trafficking Indicators (HTI)	https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/23612
A4P 1: politics	Military	International Institute for Strategic Studies (IISS) Military Balance	https://www.iiss.org/publications/the-military-balance-plus
A4P 1: politics; A4P 3: protection; A4P+ 7: cooperation with host countries	Military	Stockholm International Peace Research Institute (SIPRI) databases	https://www.sipri.org/databases
A4P 1: politics; A4P 6: peacebuilding and sustaining peace	Political events	GDELT Event Database	https://www.gdeltproject.org/data.html

A4P 1: politics; A4P+ 7: cooperation with host states	Political events	Keesing's Record of World Events	https://library.princeton.edu/resource/3894
A4P 1: politics	Political violence	Major Episodes of Political Violence	https://www.systemicpeace.org/inscrdata.html
A4P 1: politics; A4P 6: peacebuilding and sustaining peace	Political violence	Social Conflict Analysis Database (SCAD)	https://www.strausscenter.org/ccaps-research-areas/social-conflict/database/
A4P 6: peacebuilding and sustaining peace; A4P+ 7: cooperation with host countries	Public opinion	Afrobarometer	https://afrobarometer.org/data/merged-data
A4P 6: peacebuilding and sustaining peace; A4P+ 7: cooperation with host countries	Public opinion	AmericasBarometer (LAPOP)	https://www.vanderbilt.edu/lapop/raw-data.php
A4P 6: peacebuilding and sustaining peace; A4P+ 7: cooperation with host countries	Public opinion	Eurobarometer	https://europa.eu/eurobarometer/surveys/browse/all
A4P 6: peacebuilding and sustaining peace; A4P+ 7: cooperation with host countries	Public opinion	Asian Barometer	http://www.asianbarometer.org/data
A4P 1: politics; A4P 2: women, peace and security; A4P 3: protection; A4P 8: conduct of peacekeepers and peacekeeping operations; A4P+ 5: accountability of peacekeepers	Sexual violence	Sexual Violence in Armed Conflict (SVAC) Dataset	http://www.sexualviolencedata.org/dataset/
A4P 4: safety and security; A4P+ 4: accountability to peacekeepers	State authority	Political Instability Task Force (PITF) State Failure Problem Set	https://www.systemicpeace.org/inscrdata.html

A4P 1: politics	State authority	Coups d'Etat	https://www.systemicpeace.org/inscrdata.html
A4P 1: politics; A4P 4: safety and security; A4P+ 4: accountability to peacekeepers	State authority	State Fragility Index and Matrix, Time-Series Data	https://www.systemicpeace.org/inscrdata.html
A4P 6: peacebuilding and sustaining peace	State authority	Counterbalancing / Coup-Proofing Data	https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/JCVR1H
A4P 1: politics	Subnational data	PRIO-GRID data	https://grid.prio.org/#/download
A4P 1: politics	Terrorism	High Casualty Terrorist Bombings	https://www.systemicpeace.org/inscrdata.html
A4P 1: politics	Terrorism	Global Terrorism Database (GTD)	https://www.start.umd.edu/gtd/access/
A4P 1: politics; A4P 6: peacebuilding and sustaining peace	Violence	Global Violent Deaths (GVD)	https://www.smallarmssurvey.org/database/global-violent-deaths-gvd
A4P 1: politics; A4P 6: peacebuilding and sustaining peace	Violence	Targeted Mass Killing (TMK) dataset	https://politicsir.cass.anu.edu.au/about-targeted-mass-killing-dataset
A4P 1: politics; A4P 6: peacebuilding and sustaining peace	War, military, diplomacy, alliances	Correlates of War (COW) datasets	https://correlatesofwar.org/data-sets

C) SLIDES FROM VIRTUAL WORKSHOP 'COMMUNITY-LEVEL PERCEPTION SURVEYS', PRESENTED BY DR. PATRICK VINCK ON OCTOBER 28, 2022

VIRTUAL PEACEKEEPING DATA WORKSHOP #4

COMMUNITY-LEVEL PERCEPTION SURVEYS

BRIDGING SCHOLARSHIP AND PRACTICE

PATRICK VINCK

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"Why can't those people leave peace to the experts?"

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Making available detailed and reliable up to date data

Produced by quality teams from local universities

In order to

Monitor and assess key indicators on peacebuilding and progress linked to ongoing interventions

Which leads to...

Understand the situation and make good decisions to break the cycle of violence and build peace

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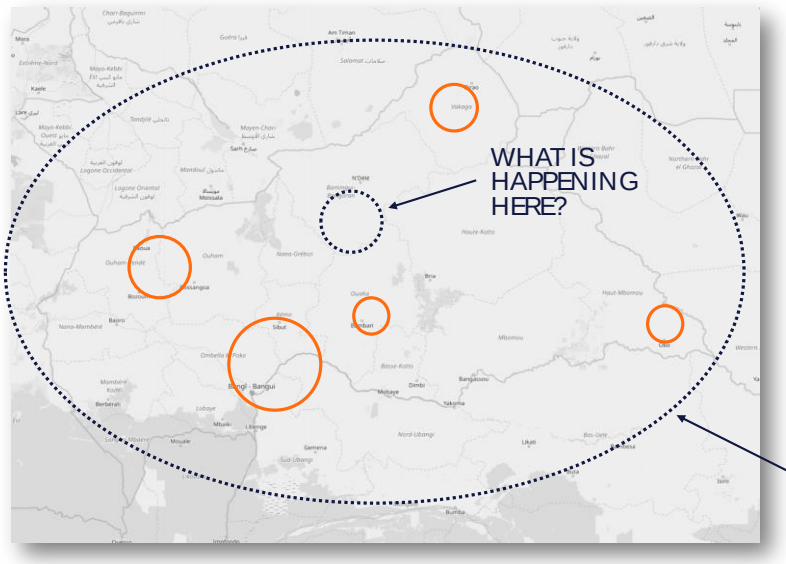

COMMON
DATA
LANDSCAPE

GAPS
- LOCAL
- GLOBAL

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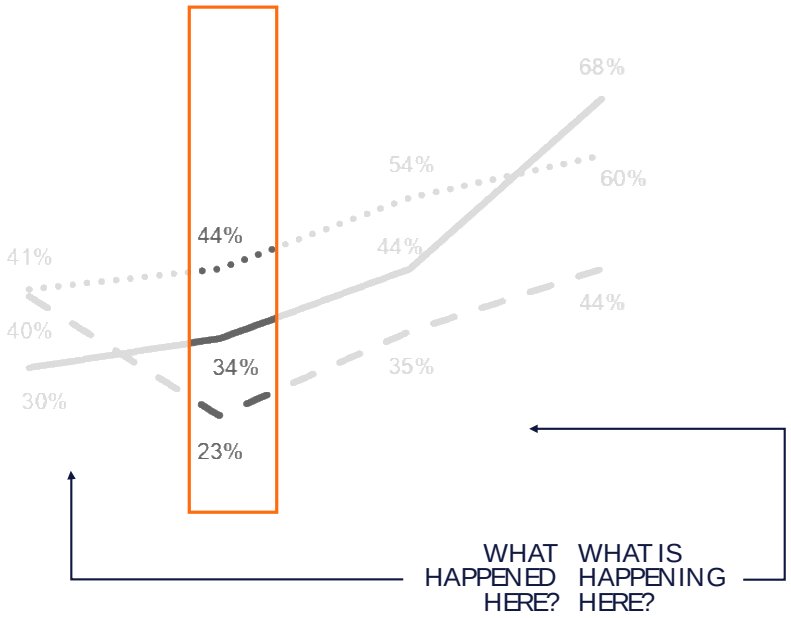

COMMON
DATA
LANDSCAPE

GAPS
- TEMPORAL

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COMMON
DATA
LANDSCAPE
DATA
PROCESSING
Intensity
Conflict
Stalemate
Conflict
Development
Conflict
Resolution
Underlying
Conflict
Reconciliation
Time
RESEARCH
DESIGN
DATA
COLLECTION
RESULTS
AVAILABLE
NEED FASTER
PROCESSING


SIEGEL
"Get me everything on everybody."
© NEWYORKER

DRC example

25+ QUARTERLY POLLS

25 SAMPLING STRATA

>125,000 INTERVIEWS 2014-2022

UNIQUE LONGITUDINAL DATASET
SECURITY – PEACE – JUSTICE – SOCIAL COHESION – GOVERNANCE – SERVICES

RIGOROUS METHODOLOGY IN COMPLEX SETTING
MIXED-METHODS – TECHNOLOGY – LONGITUDINAL

CREATING EVIDENCE-BASED POLICY SPACE
PARTICIPATORY APPROACH – ENGAGEMENT - RECOMMENDATIONS

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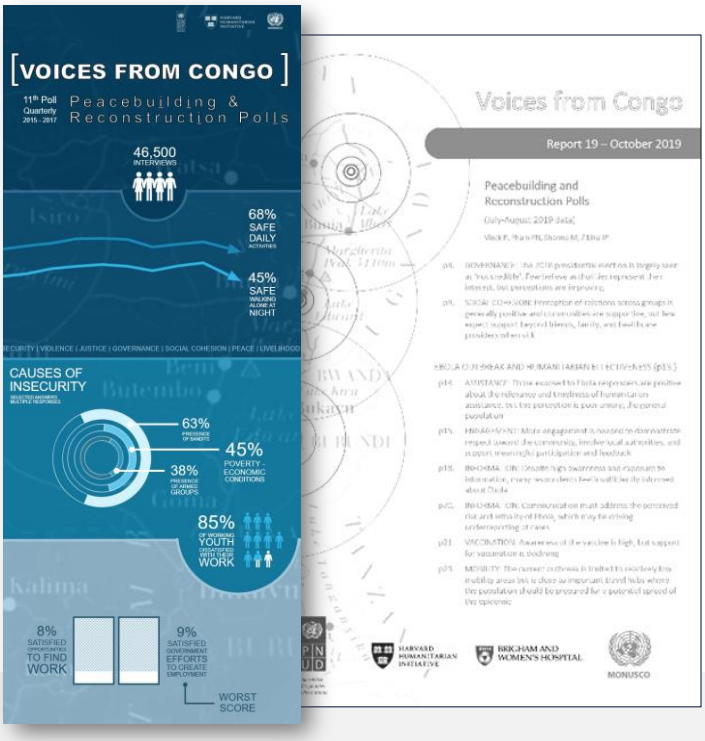

- LESSONS LEARNED "CREATE" DATA
  - SAMPLING
  - REDUCE "EXTRACTIVE" RESEARCH PRACTICES
  - REDUCE COST OF SURVEYS
  - EXAMPLES
- CREATE SPACE FOR POLICY DISCUSSIONS INFORMED BY DATA, EVIDENCE

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WHAT ARE WE MEASURING?

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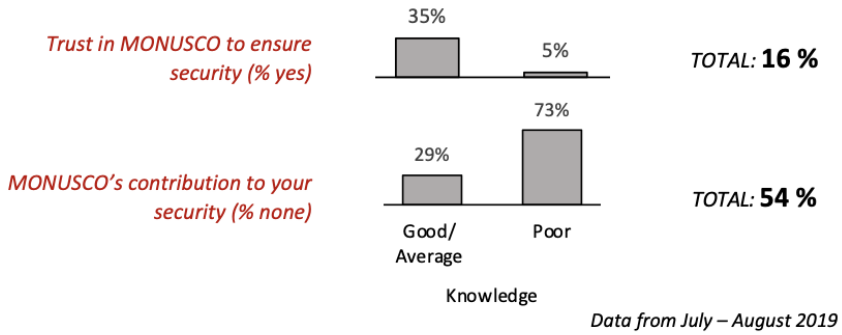

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Peacekeeper Perspective

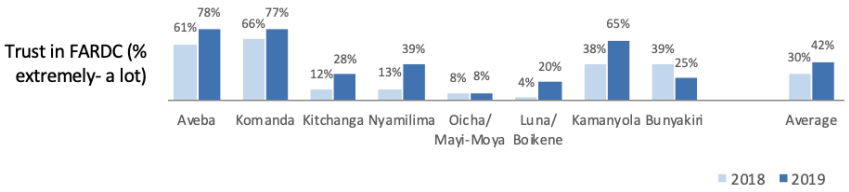
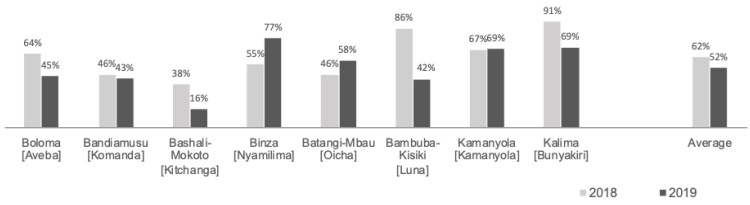


Figure 19: Population trust in FARDC to ensure security (% yes)

Population Perspective



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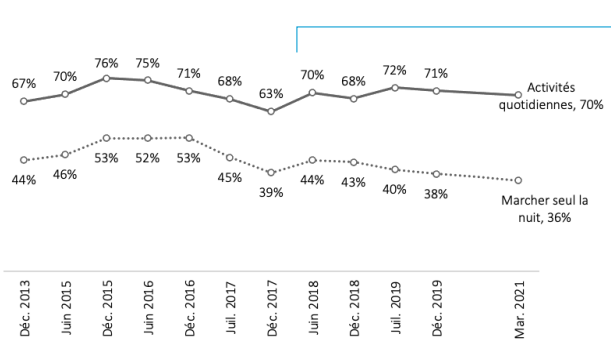
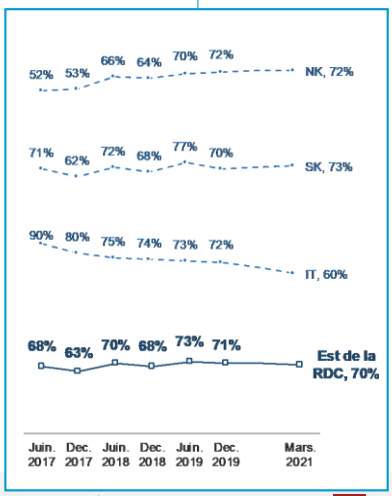
Sentiment de Sécurité

% en sécurité – très en sécurité



Tendances provinciales (Total pour NK, SK, IT)

Activités quotidiennes/ par province



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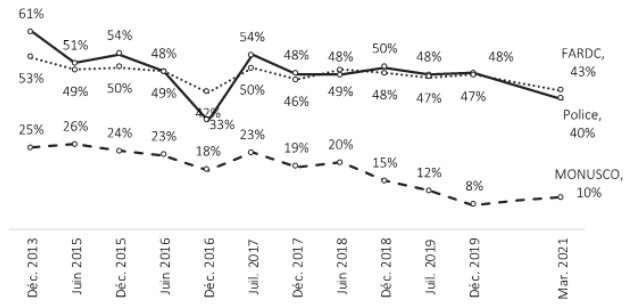
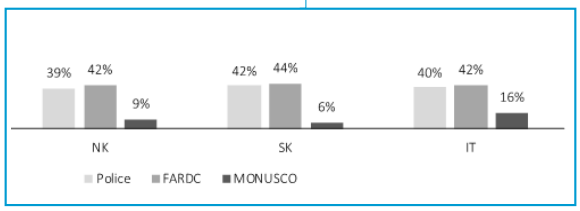
Acteurs de sécurité

% confiance pour assurer la sécurité

Dernières données: mars 2021



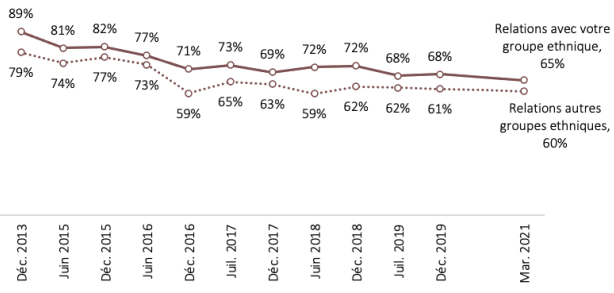
Tendances provinciales (Total pour NK, SK, IT)



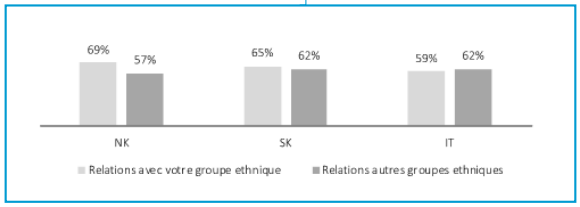
RELATIONS ETHNIQUES

% bonne – très bonne

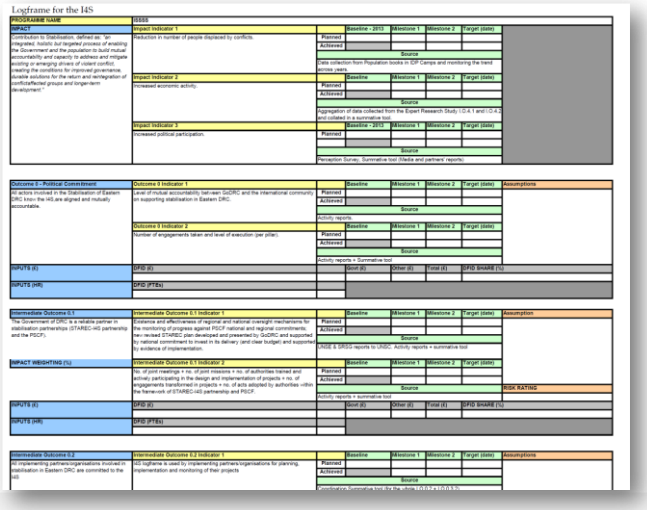
Dernières données: mars 2021



Tendances provinciales (Total pour NK, SK, IT)



SSU / Stabilization indicators


Logframe for the I4S

- Political participation
- Inclusion / representation by local authorities
- Trust in authorities, security actors, within community
- Satisfaction with services
- …

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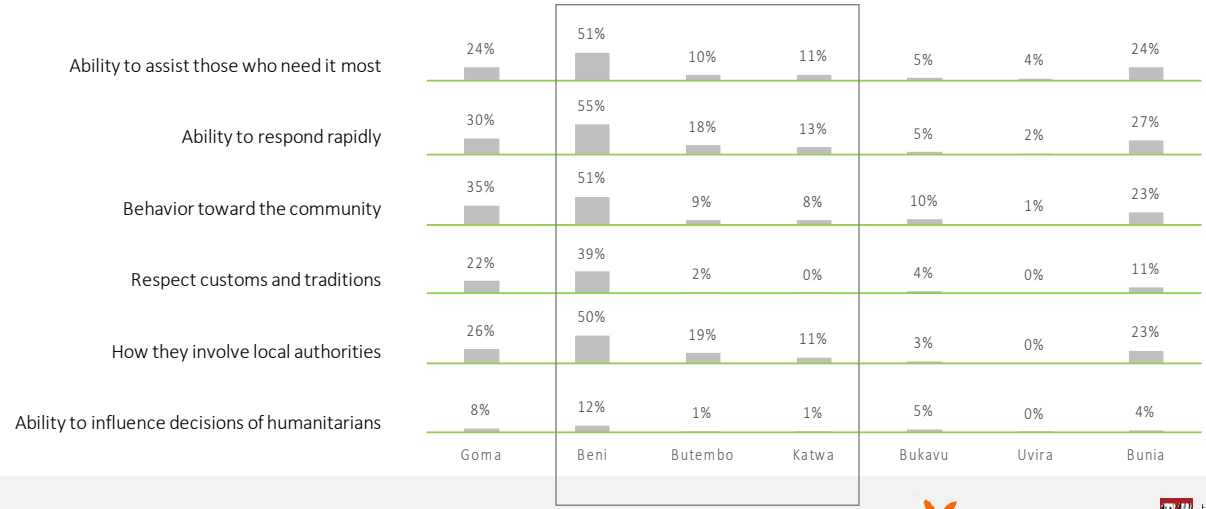
Perception of humanitarians resp. ebola

Perception of humanitarian actors responding to Ebola (% positive)



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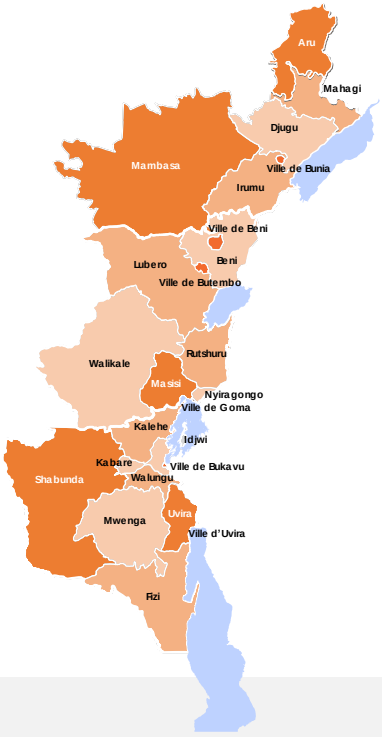
LESSONS LEARNED WHO?



25 territoires / cities (strata)

In each strata, random selection of 9 groupements (quartiers)

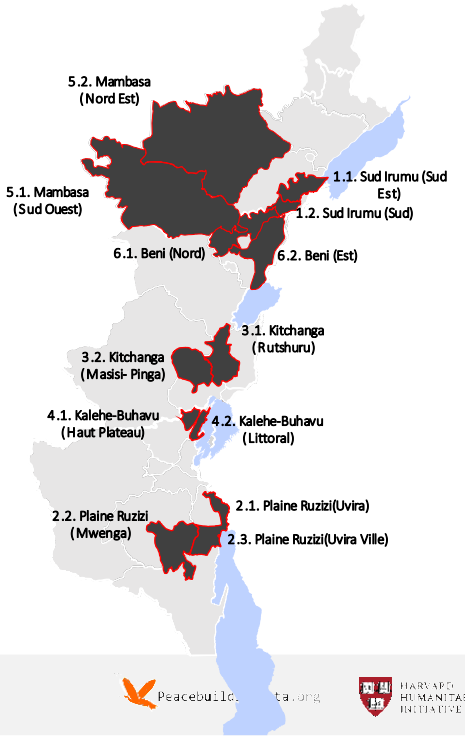
In each groupement, random selection of 3 villages (avenues)

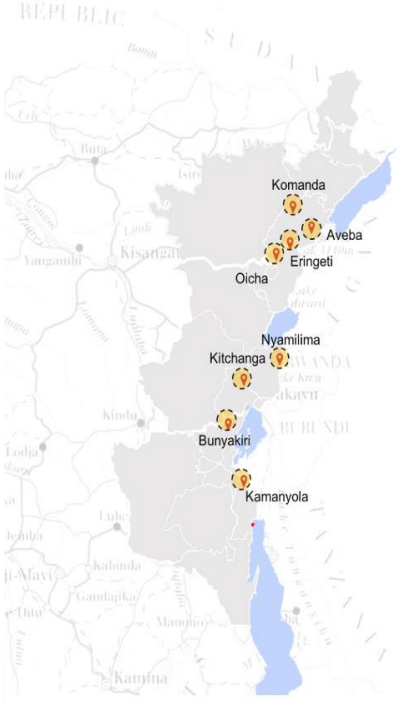
In each village random selection of 8 households (geographic EPI method)

In each household, random selection of 1 adult

I4S Priority Zones

	Zone Prioritaire		Sous Zone	Chefferies/ Secteurs
1	Sud Irumu	1.1	Sud	Bahema Mitego
				Bahema Boga
				Banyali Tchabi
		1.2	Sud Est	Bahema Sud
				Walendu Bindi
2	Plaine Ruzizi	2.1	Uvira	Plaine de Ruzizi
				Bavira
		2.2	Mwenga	Secteur d'Itombwe
		2.3	Uvira Ville	--
3	Kitchanga	3.1	Rutshuru	Bwito
		3.2	Masisi - Pinga	Bashali
				Pinga*
				Axe Pinga-Rutshuru*
4	Kalehe-Buhavu	4.1	Haut Plateau	Buhavu**
		4.2	Littoral	Buhavu **
5	Mambasa	5.1	Sud Ouest	Babila Babombi
				Bombo
				Bandaka
		5.2	Nord Est	Babila Bakwanza
				Mambasa
				Walese Karo
				Walese Dese
6	Beni	6.1	Nord	Beni Mbau
		6.2	Est	Ruwenzori
				Watalinga





'MONUSCO STUDY'

Comprehensive Evaluation and Proximity-based Sentiment Analysis

LESSONS LEARNED HOW?

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MIXED METHODS

Figure 2. Mixing these methods should be safe.
Illustration by Patrick Vinck.

PRACTICAL, IN-DEPTH, BUT ALSO QUANTIFIABLE UNDERSTANDING OF SOCIAL ISSUES WITH DIRECT PRACTICAL OUTCOMES SHAPING PROGRAMS AND POLICIES.

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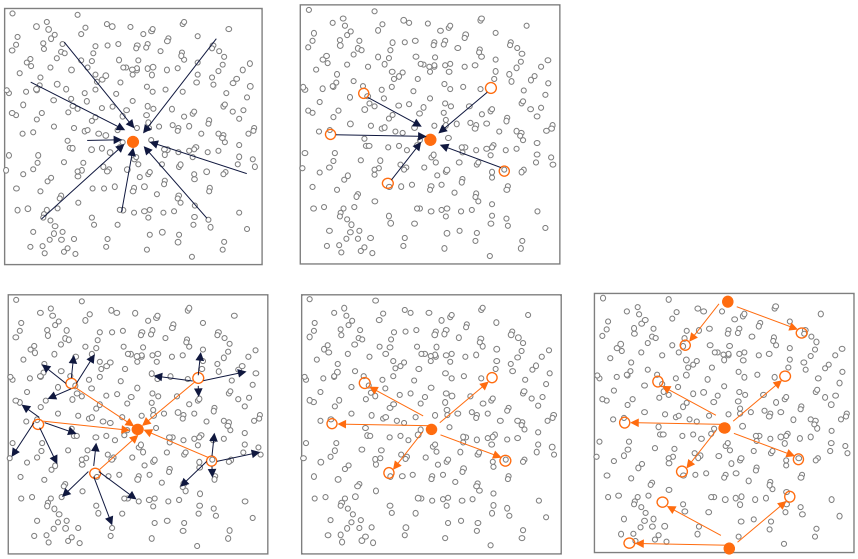
Overall stategy?

- Crowdsourcing?
- Crowdseeding?
- Crowdseeding neighborhood method
- Phone-based interviews
- Face to face (multiple sources)



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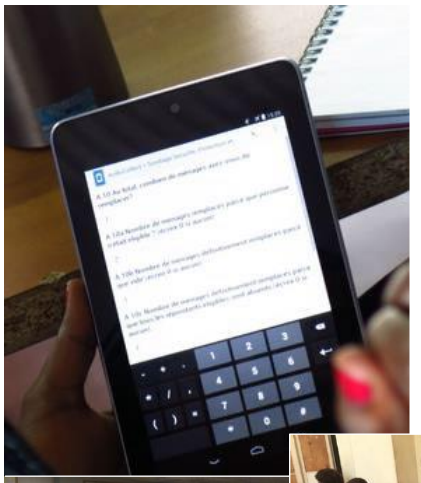

- Reliable
- Timely
- Representative
- Trends
- Participatory

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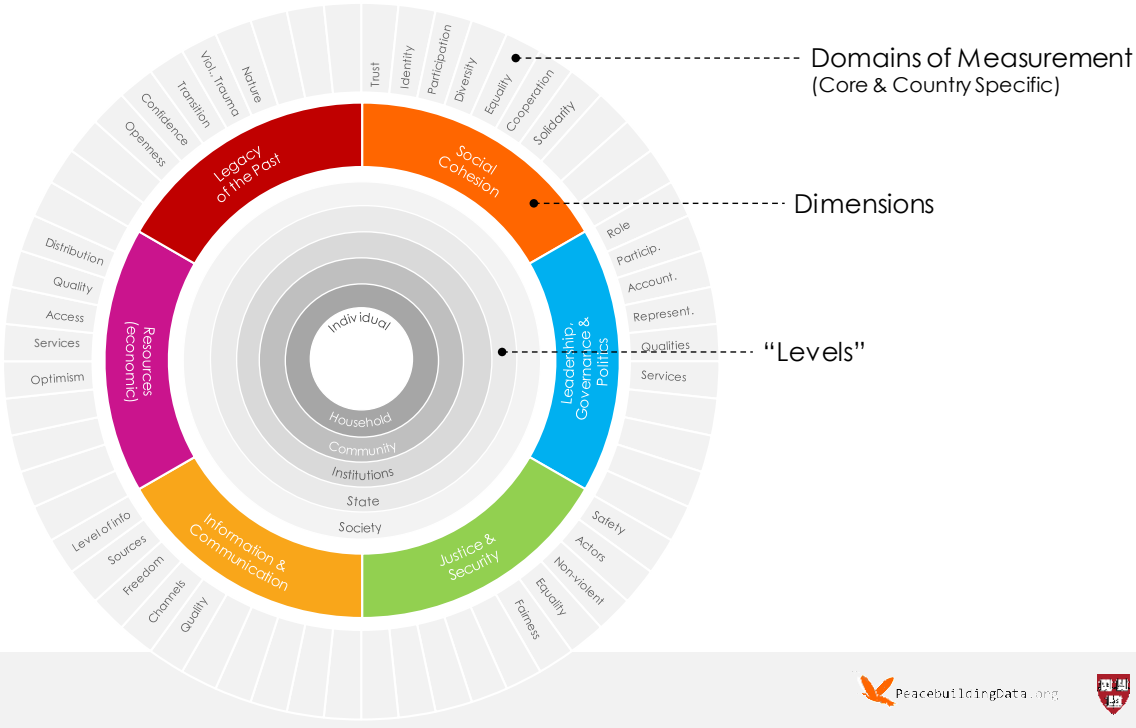
WHAT TO ASK?

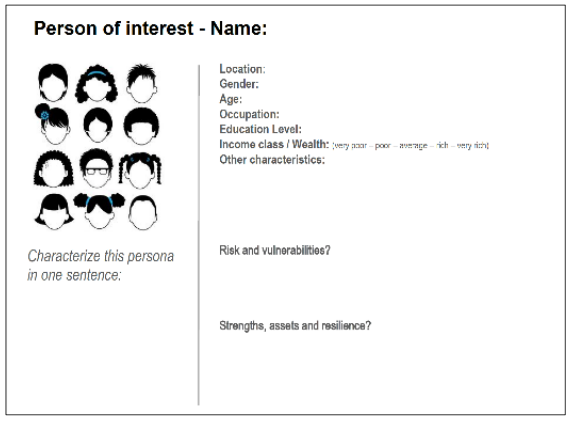

Domains of Measurement
(Core & Country Specific)
Dimensions
"Levels"
Social Cohesion
Leadership, Governance & Politics
Justice & Security
Information & Communication
Resources (economic)
Legacy of the Past
Trust
Identity
Participation
Diversity
Equality
Cooperation
Solidarity
Role
Particip.
Account.
Represent.
Qualities
Services
Safety
Actors
Non-violent
Equality
Fairness
Level of info
Sources
Freedom
Channels
Quality
Distribution
Quality
Access
Services
Optimism
Openness
Confidence
Transition
Viol. Trauma
Nature
Individual
Household
Community
Institutions
State
Society

Methods

Concept Maps

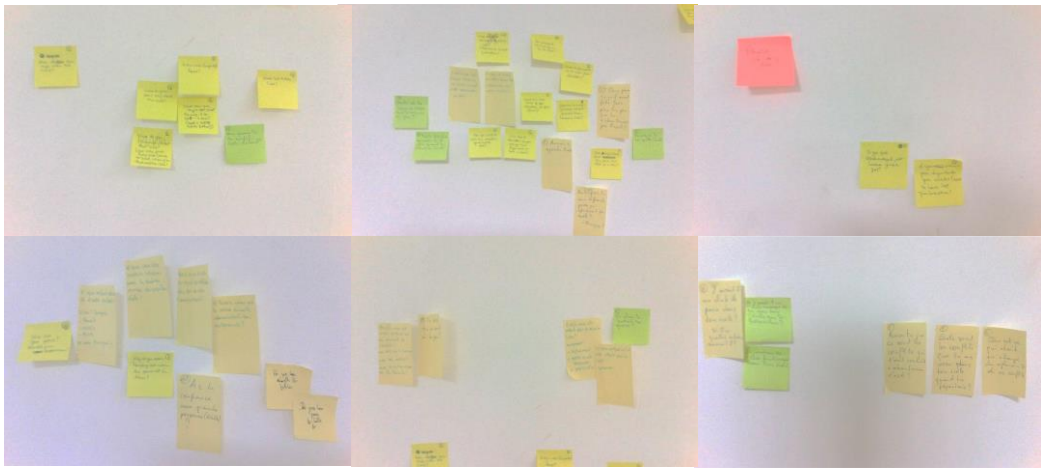
Methods - Personas

Personas



Methods

Brainstorming



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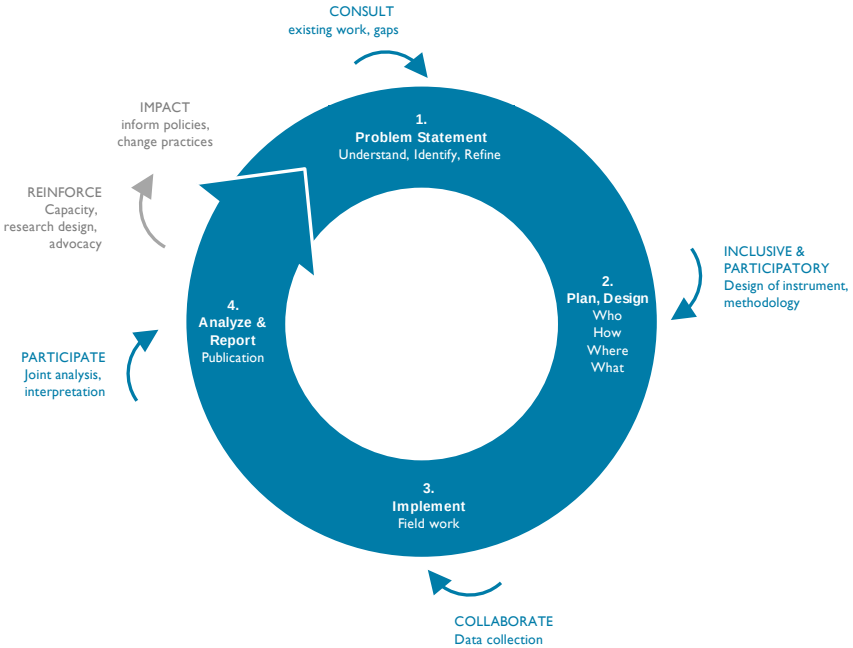

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SUMMARY

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KEY FACTORS:

- CONSTANT ADAPTATION
  - SAMPLING
  - CONTENT
- LOCALIZATION

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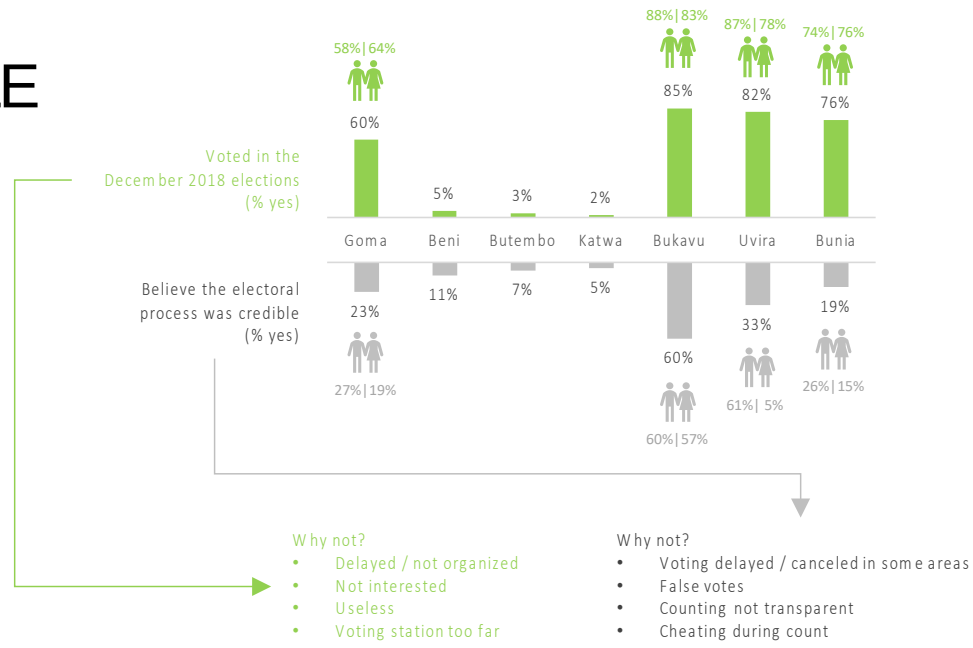
EXAMPLE

Elections



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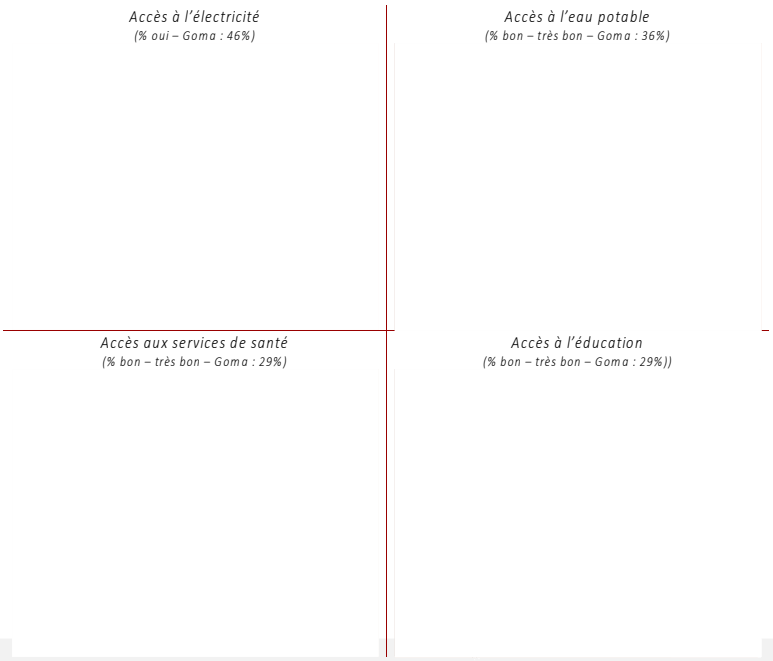
EXAMPLE

Access to services - Goma

Carte 1: Accès aux services et besoins de base par quartier



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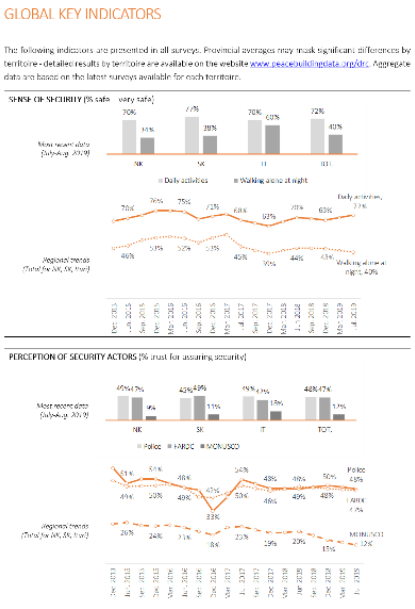
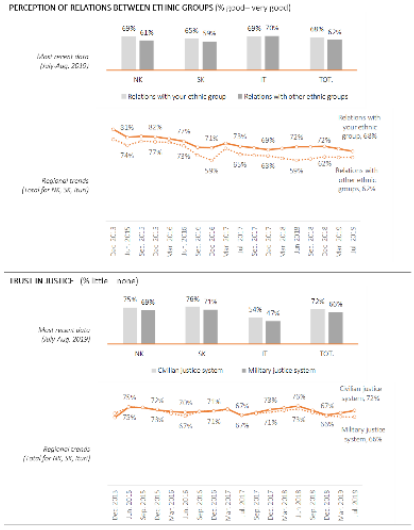
EXAMPLE

Core – security, peace, justice…





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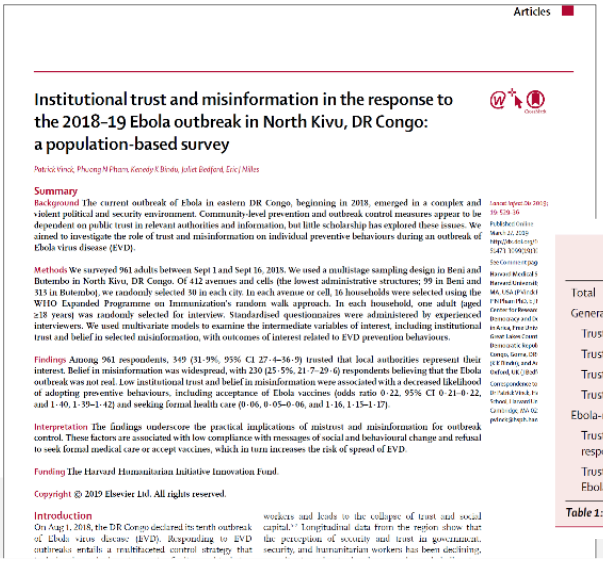
EXAMPLE

Ebola



Articles

Institutional trust and misinformation in the response to the 2018–19 Ebola outbreak in North Kivu, DR Congo: a population-based survey

Patrick Vinck, Phuong N Pham, Kenedy K Bindu, Juliet Bedford, Eric J Miles

Summary

Background The current outbreak of Ebola in eastern DR Congo, beginning in 2018, emerged in a complex and violent political and security environment. Community-level prevention and outbreak control measures appear to be dependent on public trust in relevant authorities and information, but little scholarship has explored these issues. We aimed to investigate the role of trust and misinformation on individual preventive behaviours during an outbreak of Ebola virus disease (EVD).

Methods We surveyed 961 adults between Sept 1 and Sept 16, 2018. We used a multistage sampling design in Beni and Butembo in North Kivu, DR Congo. Of 412 avenues and cells (the lowest administrative structures; 99 in Beni and 313 in Butembo), we randomly selected 50 in each city. In each avenue or cell, 16 households were selected using the WHO Expanded Programme on Immunization's random walk approach. In each household, one adult (aged ≥18 years) was randomly selected for interview. Standardised questionnaires were administered by experienced interviewers. We used multivariate models to examine the intermediate variables of interest, including institutional trust and belief in selected misinformation, with outcomes of interest related to EVD prevention behaviours.

Findings Among 961 respondents, 349 (31·9%, 95% CI 27·4–36·9) trusted that local authorities represent their interest. Belief in misinformation was widespread, with 230 (25·5%, 21·7–29·6) respondents believing that the Ebola outbreak was not real. Low institutional trust and belief in misinformation were associated with a decreased likelihood of adopting preventive behaviours, including acceptance of Ebola vaccines (odds ratio 0·22, 95% CI 0·21–0·22, and 1·40, 1·39–1·42) and seeking formal health care (0·06, 0·05–0·06, and 1·16, 1·15–1·17).

Interpretation The findings underscore the practical implications of mistrust and misinformation for outbreak control. These factors are associated with low compliance with messages of social and behavioural change and refusal to seek formal medical care or accept vaccines, which in turn increases the risk of spread of EVD.

Funding The Harvard Humanitarian Initiative Innovation Fund.

Introduction

On Aug 1, 2018, the DR Congo declared its tenth outbreak of Ebola virus disease (EVD). Responding to EVD outbreaks entails a multifaceted control strategy that

workers and leads to the collapse of trust and social capital.[1,2] Longitudinal data from the region show that the perception of security and trust in government, security, and humanitarian workers has been declining,

	Unweighted (n)	Weighted (% [95% CI])
Total	961	..
Generalised government trust		
Trust local authorities	349	31·9% (27·4–36·9)
Trust city authorities	198	15·1% (11·9–19·0)
Trust provincial authorities	75	4·9% (3·6–6·7)
Trust national authorities	29	2·1% (1·2–3·4)
Ebola-related trust		
Trust government for Ebola response	419	40·5% (36·8–44·3)
Trust health professionals for Ebola response	620	61·5% (56·9–65·9%)

Table 1: Trust in state and institutions

	Unweighted (n)	Weighted (% [95% CI])
Total	961	..
Type of information received		
Cases of Ebola in the province	605	63·7% (54·3–72·2)
Intervention to combat Ebola in the province	641	63·7% (54·5–72·1)
Symptoms of Ebola	831	85·0% (81·2–88·2)
How to protect oneself	896	91·6% (89·1–93·5)
Where to seek care	824	80·3% (77·0–83·2)
What to do if a relative has Ebola	747	72·3% (68·8–75·7)
Heard misinformation		
Ebola does not exist	850	86·5% (82·9–89·4)
Ebola is fabricated for financial gains	826	84·7% (80·2–88·3)
Ebola is fabricated to destabilise the region	837	86·1% (81·8–89·4)
Heard any of the three statements	899	92·2% (88·8–89·4)
Heard all three statements	768	78·0% (73·0–82·4)
Belief in misinformation		
Ebola does not exist	230	25·5% (21·7–29·6)
Ebola is fabricated for financial gains	312	32·6% (28·2–37·3)
Ebola is fabricated to destabilise the region	371	36·4% (32·1–41·0)
Believe any of the three statements	446	45·9% (41·7–50·2)
Believe all three statements	171	18·2% (14·3–22·7)

…le 3: Respondents who had received or heard information or believed …sinformation about Ebola

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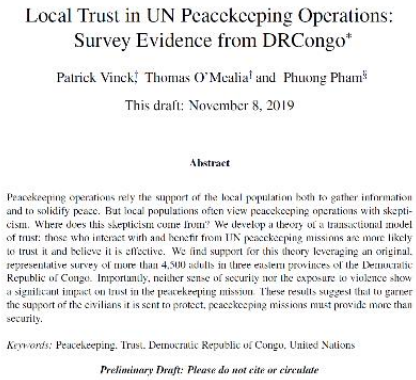
EXAMPLE

Effectiveness of peacekeeping?



Local Trust in UN Peacekeeping Operations: Survey Evidence from DRCongo*

Patrick Vinck† Thomas O'Mealia‡ and Phuong Pham§

This draft: November 8, 2019

Abstract

Peacekeeping operations rely the support of the local population both to gather information and to solidify peace. But local populations often view peacekeeping operations with skepticism. Where does this skepticism come from? We develop a theory of a transactional model of trust: those who interact with and benefit from UN peacekeeping missions are more likely to trust it and believe it is effective. We find support for this theory leveraging an original, representative survey of more than 4,500 adults in three eastern provinces of the Democratic Republic of Congo. Importantly, neither sense of security nor the exposure to violence show a significant impact on trust in the peacekeeping mission. These results suggest that to garner the support of the civilians it is sent to protect, peacekeeping missions must provide more than security.

Keywords: Peacekeeping, Trust, Democratic Republic of Congo, United Nations

Preliminary Draft: Please do not cite or circulate

- MIXED EVIDENCE – MACRO LEVEL - +, MICRO LEVEL – LOCALLY PROBLEMATIC

Public opinion?

- DESPITE IMPORTANCE, LACK OF DATA

Unique org. nature

- INTERNATIONAL, NOT LIKE LOCAL POLITICAL ACTORS

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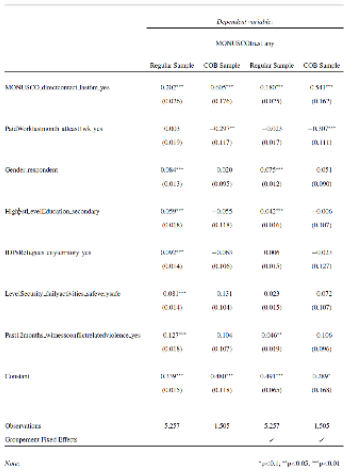
RESULTS

Effectiveness of peacekeeping?



- Contact COBs
  - Higher effect for COBs sample
- Effects of knowledge / information
- Frequency of interaction
- Base closure
- Violence
  - (lack variance in COB sample) Some v. none – increase trust
  - High v. some – lower trust
  - Witness - mixed

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EXAMPLE

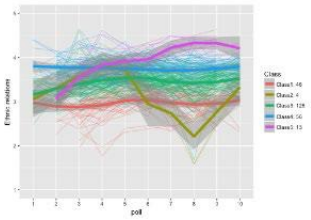
Security and ethnic relations

Perceptions of security and ethnic relations over time in Democratic Republic of Congo

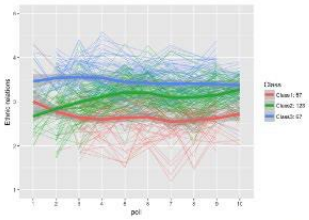
Reyan Duan
Supervisors: Anjali Mazumder and Robin Mejia
Collaborators: Patrick Vinck and Phuong Pham

1 Introduction

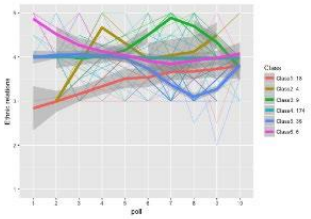
Over the past decades, there has been continuous armed conflict and economic and political instability in the Democratic Republic of the Congo (DRC) [1]. In 1997, Laurent Desire Kabila ended rule under Mobutu Sese Seko through a violent campaign. During the ongoing war, the country was divided into rebel-controlled, foreign-occupied territories. In 2002, the open armed conflict officially came to an end with the signing of a peace agreement. However, local conflicts still remains in the eastern Congo even now, fifteen years later. Despite the effort made by the Congolese government to rebuild the country and the ongoing United Nations peacekeeping mission, there has been little improvement in terms of peace and justice[2, 3]. While the conflict has been largely confined to the eastern DRC over the last few years, in North Kivu in particular, the situation remains volatile [4]. In discussions, Vinck noted that conflicts in Congo are often described as ethnic conflicts, despite a lack of formal study to assess this description. This paper will examine the evolution of the conflict through population's perception of security. Conflict related perceptions and attitudes have been commonly used to understand conflict and to guide peace-building actions. In Uganda, Vinck and Pham examined populations attitudes towards peace and justice, revealing remaining tensions between Ugandan government forces and Lord's Resistance Army



(a) Change pattern classes for personal experience security



(b) Change pattern classes for freedom of speech security



(c) Change pattern classes for ethnic relations

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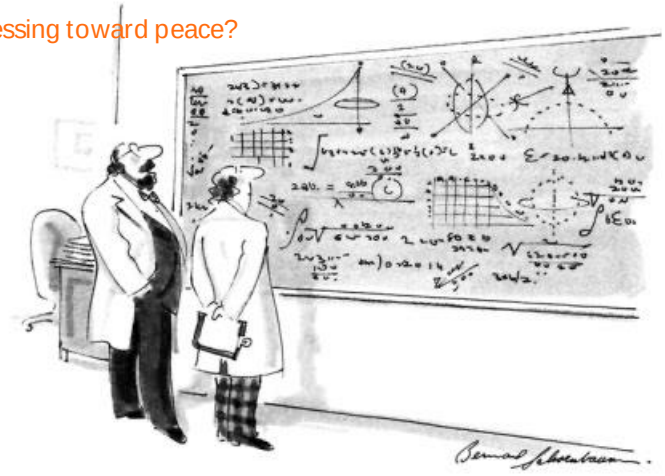
So…

Is Eastern DRC progressing toward peace?



"Oh, if only it were so simple."

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CREATING SPACE FOR POLICY DISCUSSIONS INFORMED BY DATA, EVIDENCE

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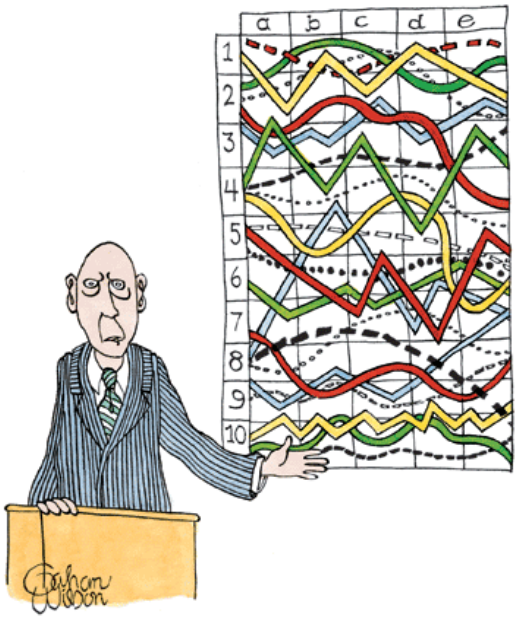
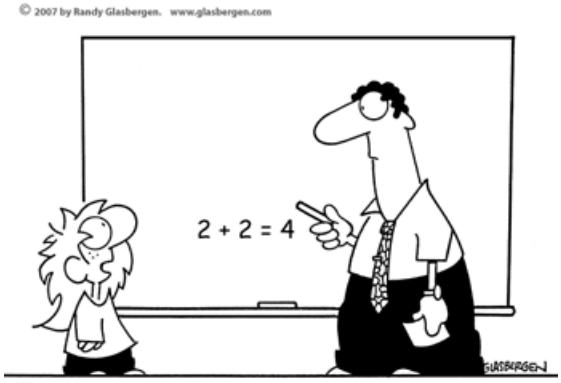


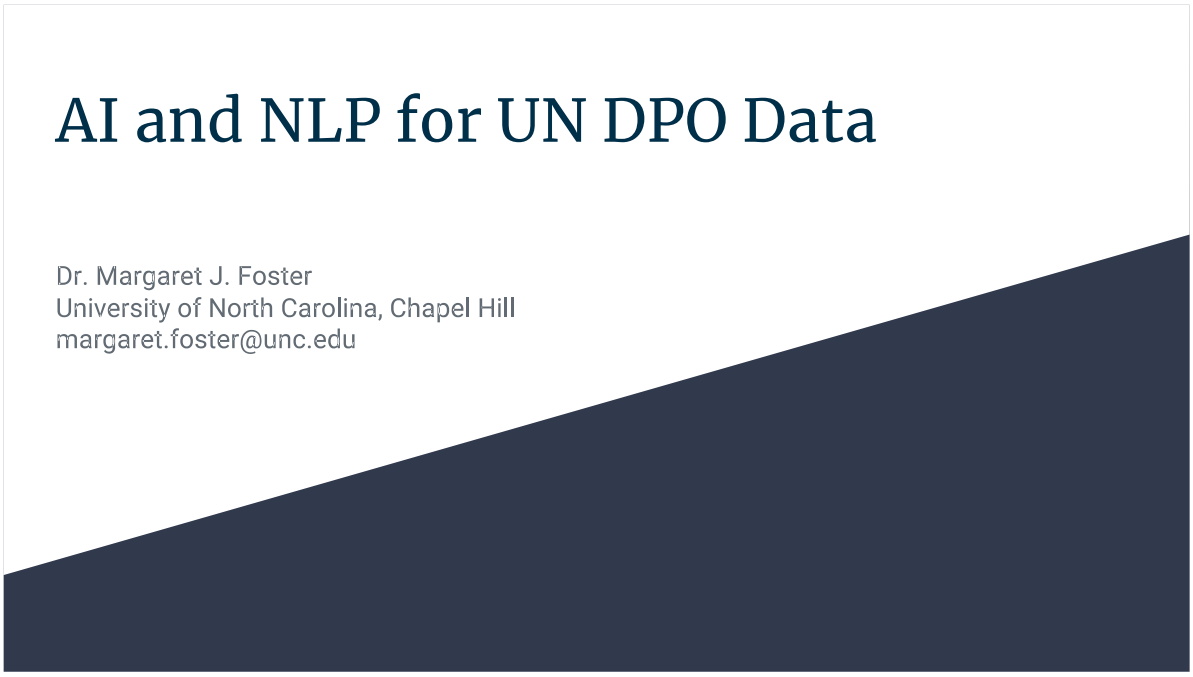
"I'll pause for a moment so you can let this information sink in."



"How can I trust your information when you're using such outdated technology?"

"I know we didn't accomplish anything, but that's what meetings are for."

D) SLIDES FROM VIRTUAL WORKSHOP 'ARTIFICIAL INTELLIGENCE (AI), NATURAL LANGUAGE PROCESSING (NLP), AND TEXT-AS-DATA', PRESENTED BY DR. MARGARET J. FOSTER ON NOVEMBER 16, 2022



Overview

Technical Overview: Terminology

Machine Learning:
Formally: Computer systems that can learn and adapt without explicit instructions
Informally: Pattern-finding

Artificial Intelligence (AI):
Computers implement utility functions to make decisions

Big Data:
Data arriving in great velocity and with great volume; often in complex forms.

Technical Overview: What is NLP/Text-as-Data?

Natural Language Processing (NLP):
Using linguistics, computer science, and AI to allow computer programs to understand human language as spoken and written.

Turns *texts* (and images!) into *data*

How?

How does NLP/Text/Images as Data Work?

Converts texts into mathematical objects that a computer can understand

	carried	offens	attac	descrip	district	fierce	fight	fire	targ
doc 1	0	.053	.0215	0	.1	.053	0	.001	0
doc 2	0	0	.01	0	0	0	.21	0	.04
doc 3	.033	.022	0	0	.031	0	0	0	0
doc 4	0	0	0	.007	0	0	.16	.032	.063
doc 5	0	0	.017	0	0	0	0	.1	0
doc 6	0	0	0	.025	.072	.001	.021	0	.042

Opportunities: Seeing the Bigger Picture Faster

- ML models can **summarize themes at scale**
- Good for systematic perspective on broader context
- Helps quantify trends and covariate relationships
- Efficiently access historical information
- Identifies new content embedded in reports

Opportunities: Example

Possible Use Cases: automatically code event participants over time

Report of the Secretary-General on the situation in Mali (9/2014)

4. On 15 and 16 June, the Ministers for Foreign Affairs and Ambassadors of Algeria, Burkina Faso, Chad, Mali, Mauritania and the Niger met in Algiers, affording my Special Representative the opportunity to reiterate the call of the Council for proper coordination among international actors in support of the Malian peace process.

Color key:
Whom
From where

Opportunities: Example II

Possible Use Cases: extract conflict events

Report of the Secretary-General on the situation in Mali (9/2014)

19. The breaches of the ceasefire increased security risks for civilians and resulted in human rights violations, in breach of article 10 of the preliminary agreement. After MNLA took the town of Aguelhok on 21 May, 66 Imghad Tuareg civilian men, fearing for their security, sought refuge in the MINUSMA camp. They stayed there until 3 July, when MINUSMA negotiated their safe return with MNLA and HCUA. The clashes that took place from 11 to 26 July in Anefis and Tabankort resulted in the killing of at least 4 civilians and the forced displacement of 56 women and 72 children. On 18 August, six men were severely beaten by MNLA in Ménaka (Gao region) for wearing t-shirts bearing the colours of the Malian flag. In Lerneb, MAA (Coordination) has curtailed the movements of members of the Arab community suspected of being MAA (Platform) sympathizers.

Color key:
When (start, end);
What happened
To Whom

Challenges

Challenge: NLP/Text-as-Data models *content*

…so must consider omissions, biases, and frames

Report of the Secretary-General on the situation in Mali (12/2014)

16. On 6 November, the Malian defence and security forces took control of the southern bank of the Niger River in Didi, east of Timbuktu, while MAA (Coordination) and MNLA remained in control of the northern bank. In mid-November, the Coordination took control of Zarho (100 km east of Didi), and on 1 December the Platform seized Bamba (30 km east of Zarho). There was no significant violence recorded during those movements.

17. Extremist groups were suspected of killing 16 peacekeepers and injuring 14 others during the reporting period. Improvised explosive devices and anti-vehicle mines placed along routes used by MINUSMA severely hindered its operations. On

Challenges II

A non-exhaustive list of possible sources of bias:

Level: Data Generating Process
Frame: Positivity/negativity biases
Missing-not-at-random
Omission
Noise

Level: Analysis
Unit of analysis mismatch
Model vs data generating process
Opacity of decision criteria
Algorithmic biases

Challenges II

Illustration: missingness/noise not at random

Toy example: a wedding invitation for one

Takeaway
Understanding what you see/don't see requires domain knowledge

Challenges III

Streetlight Effect: observational bias of searching where it is easiest to look

In the context of computational methods:
Data-hungry computational tools revolutionize analysis, in "bright" areas

Takeaway: The existence of computational tools doesn't imply that the necessary data

Exists
Is accessible
Can be generalized

Challenges: Conclusion

ML/AI are math
Math is a model

Overcoming the Challenges

Strategies:

- Evaluate with expertise
- Triangulate with additional data inputs
- Treat ML outputs as *tools* and not *answers*

ML as a Tool: Thematic Summaries

ML tools can identify and track themes

Model:
Structural Topic Model

Data:
Committee on Trade and Development
World Trade Organization

Visualization:
STM Insights

Prevalence of “LDC preferences” theme

ML as a Tool: Representative Passages

ML tools can help sift large quantities of data

Task: take 8,500+ paragraphs, find 100 most strongly related to identified theme

Model:
Structural Topic Model

Data:
Committee on Trade and Development
World Trade Organization

Visualization:
STM Insights

Most representative paragraphs, LDC prefs.

ML as a Tool: Sentiment in Different Settings

ML can be used to summarize sentiment(*)

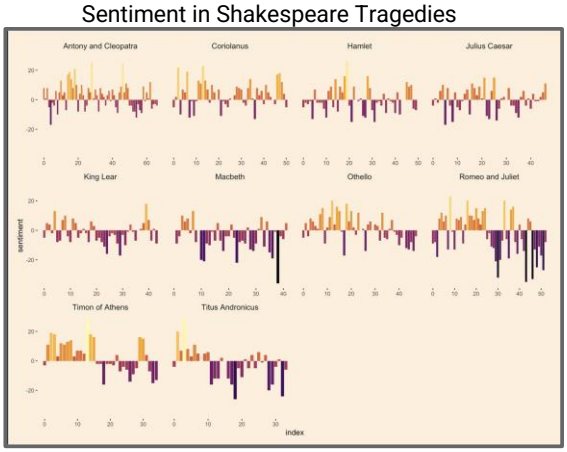
Results grouped as desired
(eg: country, year, mission, participants)

Model:
Sentiment analysis

Data:
Shakespeare tragedies

Visualization:
Tidytext

Sentiment in Shakespeare Tragedies



Source: https://peerchristensen.netlify.app/post/fair-is-foul-and-foul-is-fair-a-tidytext-entiment-analysis-of-shakespeare-s-tragedies/

ML Tools for Texts

Some other useful tools

- Sentiment /Frequency analysis (https://github.com/juliasilge/tidytext)
- Keyword-assisted topic model (https://keyatm.github.io/keyATM/)
- Word and language embedding (https://huggingface.co/docs/transformers/model_doc/bert)
- Text networks (https://cbail.github.io/textasdata/text-networks/rmarkdown/Text_Networks.html)

Additional Data Sources for UN/A4P(+): Text

The *UNSC Debates* Corpus (Schoenfeld et al. 2021)
What: 82,000+ speeches from 5,748 UNSC Meetings (1995-2020)
Codebook + data available via Harvard Dataverse:
https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/KGVSYH

***UN General Debate* Corpus (Baturo, Dasandi, and Mikhaylov 2017)**
What: 7300+ country statements at UNGA (1970-2014)
Visualization tool: http://ungd.smikhaylov.net/
Data available via Harvard Dataverse:
https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/0TJX8Y

***PeaceKeeping Operations* Corpus (Amicarelli and Di Salvatore 2021)**
1,455 reports covering 68 UN Peacekeeping Missions (1994-2020)
Data is available via: https://www.prio.org/journals/jpr/replicationdata

Sources compiled by Evgenija Kroeker

Additional Data Sources for A4P(+): Event Data I

Peacekeeping Specific:

International Peace Institute (IPI) Datal; monthly mission personnel summaries

Peacekeeping Mandates (PEMA) Dataset; UNSC resolutions

Geocoded Peacekeeping Operations (Geo-PKO) Dataset; Mission deployment maps; UNSG mission progress reports

UCDP Peacemakers at Risk (PAR) Dataset; Factiva (News archive database); UN, NGO and open-source reports

UN Peace Initiatives (UNPI) Dataset; Repertoire of the Practices of the Security Council, UNGA Yearly Reports

Sources compiled by: Evgenija Kroeker, Maline Meiske & Andrea Ruggeri

Additional Data Sources for A4P(+): Event Data II

General Conflict Events

Armed Conflict Location & Event Data Project (ACLED)

Uppsala Conflict Data Program (UCDP)

Social conflict analysis dataset (SCAD)

Global terrorism database (GTD)

Sexual Violence in Armed Conflict (SVAC) Dataset

Varieties of Democracy (V-DEM)

Sources compiled by: Evgenija Kroeker, Maline Meiske & Andrea Ruggeri

Questions?

Questions? Comments?

Contact: margaret.foster@unc.edu

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