



A step-change in quantitative social science skills

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Trilateral Research: Developing Human Security Datasets

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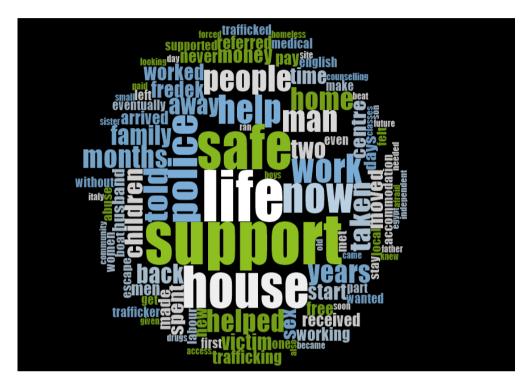
Overview of the Data Fellowship

Trilateral Research is a UK and IE-based enterprise, founded in 2004. They provide regulatory and policy advice; develop new data-driven technologies and contribute to the latest standards in safeguarding privacy, ethics and human rights within the public and private sector. I worked with them for 2 months to support their building of a cloudbased application for human security analysis.

Data Analysis

- I worked on Trilateral Research's project on collecting data regarding human security. The work entailed two broad categories of tasks. Firstly, we were trying to understand the data landscape of humanitarian data. This is done by manually searching for open datasets relating to human security. Using Excel, I focused on building a data record of the available datasets, including details of licensing, accessibility, formats, frequency of updates, geographic scope, admin level granularity, thematic relavance etc.
- Secondly, I worked on downloading and cleaning all available data for priority areas of interest. This is done so that all the data can be processed in a uniform way that can then be used by the data science team to feed into Trilateral's own analysis tools.
- I also assissted on another Trilateral project Project Honey-

Platform	dataset_name	original_source	Notes
			This dataset contains key figures and other data pertaining to the evolving
	Mozambique: Cyclone Idai Key Figures		humanitarian situation in during the Tropical Cyclone Idai response in
<u>HDX</u>	and Situation Reports Data	OCHA Mozambique HAT	Mozambique.
			This data illustrates the satellite detected surface waters in Manica, Sofala, and
	UNOSAT Geospatial Data on Floods		Tete Provinces in Mozambique, as observed from Sentinel-1 imagery acquired
<u>HDX</u>	in Mozambique - March 2019	UN Operational Satellite Applications Programm	on 13, 14, 19 and 20 March 2019.
			Based on data of the expected tropical cyclone path Twentyfour-19, wind speed
			zones from Joint Research Centre (Issued on 23 April 2019 06:00 UTC), and
	Cyclone Kenneth: Population Exposure		population data from WorldPop 2015, UNITAR-UNOSAT conducted a population
<u>HDX</u>	Analysis in Mozambique - 23 April 2019	UN Operational Satellite Applications Programm	exposure analysis for Mozambique
			Seven maps/datasets for the distribution of various populations in Mozambique
	Mozambique: High Resolution		(1) Overall population density (2) Women (3) Men (4) Children (ages 0-5) (5)
	Population Density Maps +		Youth (ages 15-24) (6) Elderly (ages 60+) (7) Women of reproductive age (ages
<u>HDX</u>	Demographic Estimates	Facebook	15-49).
			This dataset contains DTM assessments containing number of affected people,
	Mozambique Displacement Data -		their needs, geographic locations etc during Tropical cyclone Idai, on March 15th
HDX	Baseline Assessment - Idai - [IOM DTM]	International Organization for Migration	2019
	Mozambique, Road Access Constraints,		
<u>HDX</u>	Cyclones Idai and Kenneth Response	WFP - World Food Programme	This dataset is based on an extraction of OpenStreetMap.
	GRID3 Mozambique Settlement Extents		GRID3 works with countries to generate, validate and use geospatial data on
HDX	Version 01, Alpha	GRID3 (Geo-Referenced Infrastructure and Den	population, settlements, infrastructure, and subnational boundaries.



Word Cloud created in NVivo from text analysis of survivor stories

be key locations for traffickers and victims, and running text analysis on survivor stories from around the world using NVivo.

Findings

- HDX is a great source of data for many indicators regarding humanitarian issues. However, it is important to be aware of the time and context of the data collection, the methods used to collect such data and the compatibility of formats for use within internal analysis tools.
- Understanding the themes that emerge from the stories of previous survivors of trafficking could potentially provide answers into where to look for signs and hotspots of trafficking.

Key Skills Learnt

 Increased familiarity with a wide range of data formats such as CSV, JSON, GEOJSON, TIFF Files, Shapefiles, KMZ etc.

Excerpt from Excel data catalogue

comb. This project looks into issues of human trafficking and modern slavery and is trying to develop possible solutions to combat these issues. My tasks included assessing existing secondary data sources and recording its metadata, manually recording the coordinates of hotspots in Manchester which could

- Increased confidence in my ability to identify relavant data sources, assess its quality and reliability and record it in the appropriate formats
- Better understanding of a professional environment. The internship has not only helped me improve my time and project management skills, but also showed me the importance of effectively communicating expected timelines to coworkers so that work continues in a smooth fashion.
- Thinking creatively about potential ways to find answers to complicated questions. This has been a really important takeaway that I hope to utilise in my future research!