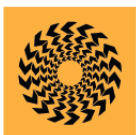


Mapping The Social Determinants Of Peace Using Open Data

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SIMPLEXITY
ANALYSIS



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Introduction

The United Nations International Labour Organization identifies that the two main determinants of social unrest are unemployment and poor economic growth.¹ The corollary of this theory is that:

$$\text{Employment} + \text{Economic Growth} = \text{Social Peace}$$

The maps produced by Global MapAid (GMA) promote sustainable development (and ultimately peace) including solutions to youth unemployment, and GMA is therefore interested in identifying and mapping the key social determinants that contribute to peace.

Simplexity Analysis Ltd develops software tools to conduct strategic futures research through the mapping of open data research sources. Discussion between GMA and Simplexity has resulted in this short pilot study which has mapped social determinants based on a small set of open data sources. The aim of this study is to begin to explore the extent to which the above Social Peace Theory is accurate, or otherwise to identify other candidate social determinants that are important for achieving social peace.

Method

A quick internet search of open data research papers relating to youth and conflict yielded 36 documents, which were analysed by the Simplexity software to extract every text string in each document. Further analysis of the strings then yielded the keywords and the strength of the linkages between keywords. A map was then created using these linkages to visualise the relationships between keywords, including social determinants, as well as other key concepts, identified by the original 36 documents.

Map

The initial map generated by the mapping process is shown in Figure 1 below. The size of the circles represent the number of hits received by a given determinant keyword across the whole document set (the circle colours are also an indicator of number of hits in approximate rank order). The most common keywords and their respective numbers of hits are shown in Table 1. The width of the arrows represent the strength of the linkage between keywords in the document set.

In this first map, Youth (920 hits) naturally dominates as this was one of the terms used for the initial document search (in fact the frequent use of the phrase “youth bulge(s)” is commonly used in the subject of demographics which is a key subject area of the literature set). Conflict and violence also commonly appear as expected. Other keywords relating to demographics also appear frequently, such as countries, population and growth.

A further set including Unemployment, Opportunities and Education are another tier of significant terms that the mapping indicates as potential determinants, and these are discussed later.

¹ United Nations International Labour Organization, World of Work Report 2013, Repairing the Economic & Social Fabric

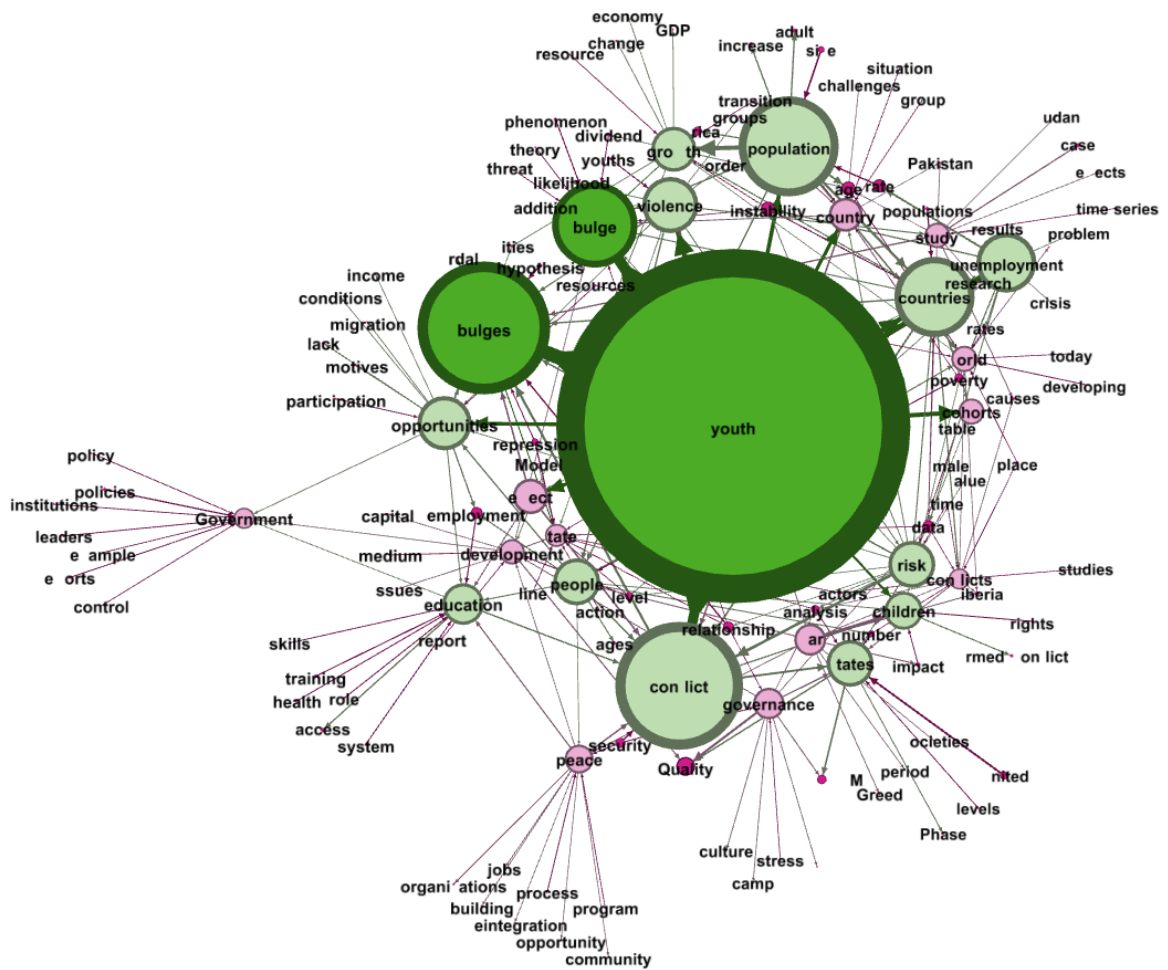


Figure 1 – Initial map of social determinants

Keyword	No. Hits	Keyword	No. Hits
Youth	920	Conflict	331
Bulge	334	Violence	145
Bulges	221		
Population	259	Opportunities	155
Growth	116	Unemployment	140
Countries	227	Education	107

Table 1 – Most frequent keywords and number of keyword hits from the document set

Since the phrase “youth bulge” dominates the map it tends to distort the linkages between other determinants. Figure 2 subsequently shows the map with Youth, Bulge and Bulges removed to improve clarity.

With Youth Bulge(s) removed, the map in Figure 2 shows the linkages between the remaining determinants more clearly. An overall observation is that the social determinants are strongly interconnected, indicating a strong dependence between them. While the mapping suggests that for example, unemployment and education are key determinants for addressing social conflict and achieving peace, the strength of interconnection reinforces the notion that integrated approaches that address many social determinants at the same time are important for developing sustainable social peace. It is worth noting for example that Government and Governance feature with a similar number of hits as Development and the three are quite well linked, reinforcing the importance of partnerships between governing authorities and development organisations, as well as the importance of adequate governance to enable these partnerships to function.

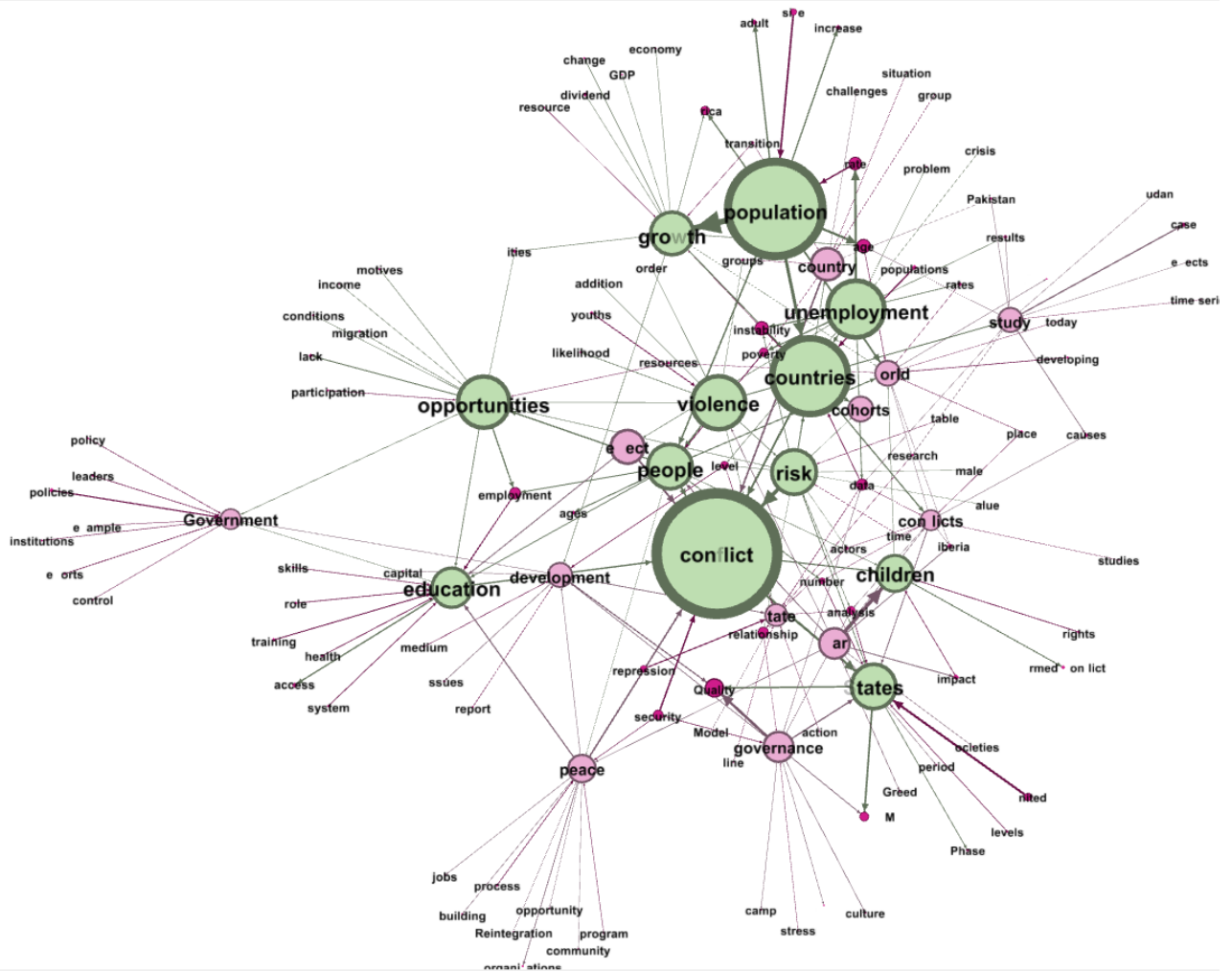


Figure 2 – Mapping of Social Determinants, with Youth Bulge(s) removed

It should also be noted that while the mapping indicates that Unemployment, Opportunities and Education are candidates for the key social determinants, Unemployment and Education are quite disconnected in this document set. Unemployment is strongly linked to the challenges that face Countries, notably Population Growth, which is turn strongly linked to Conflict on the map. Meanwhile Education is more strongly linked to Opportunities and to the role of Government.

Somewhat significant omissions from the results of the mapping are the low prominence of economic growth, poverty and natural resources as determinants. The lack of prominence of economic growth tends not to favour the Social Peace theory as presented at the start of this paper.

Also significant is the lack of mention of the environment, climate change or technology (e.g. impact of internet). It is possible that further study of a wider research set would better determine whether or not they are significant.

Key Findings

In this short study, the mapping has identified Employment and Education as candidates for key social determinants that might influence the connected issues of youth and social conflict. However, Economic Growth has so far lacked prominence in the mapping.

The mapping has identified a strong interdependence between determinants. This interconnection reinforces the notion that integrated approaches that address many social determinants at the same time are important for developing sustainable social peace.

Significant absentees from the mapping appear to be environment, climate change and technology (e.g. impact of internet). It is possible that further study of a wider research set would better determine whether or not these are significant.

Proposal for further work

This short study demonstrates the value of both open data and strategic futures research tools for analysing determinants that are important to addressing social unrest: a larger, more rigorous study should be funded to analyse a wider set of both open data and closed (pay per access) data sources.

In addition, there is also the potential to expand the study beyond the relationship between youth and conflict, to the study of social determinants that drive conflict more generally.

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