Capstone Project Proposal - 1

Feb 27th, 2018

Problem and Client

The Nepal Monitor Project (NMP) comprehensively maps human rights and violence data across Nepal using the vast majority of national news sources. The embedded Peace Monitoring Project sends local sources in from 20+ districts to have all incidents of violence systematically mapped, with the goal of improving understanding of violence in Nepal to better respond to it and promote peace. Analysis from the project is distributed to its subscribers, including local human rights defenders, national monitoring bodies, and the international community on a regular basis. However, analysis until date has focused on describing what is happening and related trends, rather than combining with other data to finding interesting correlations, that could perhaps be used to make predictions or policy recommendations.

The proposal is to find what additional analysis can be done with the data, beyond what is currently being done with spreadsheets and various GIS resources, and propose these to the project itself. As one of the members of the governance body, this should be a relatively simple matter. For broader implications, the project might decide to distribute as a post on their analysis blog and/or shared with the government, particularly of the new federal bodies that have been created. The project might decide to pass methods of repeated value on to analytical staff to be incorporated into further publications. The NMP is also currently undergoing a revamp of its platform with an external developer, so they may decide to 'bake in' some of the analytical methods into the platform itself, presumably using the d3.js toolkit.

Data

The Nepal Monitor Data set is open data, and freely available on the reports page of its website. The full two year set from from Jan 2016 do Dec 2017 will likely provide the most reliable coverage, as it would begin after any kinks in the Peace Monitoring Project had been worked out. It is automatically geocoded by gps and local level boundaries, categorized and the source of each incident is tracked. Violent incidents are further coded according to criteria developed according to The Asia Foundation violence monitoring standards: type of violence, forms and causes, the perpetrators and targets, and possible impacts.[1] Other useful Nepal data sets are available on HDX, the code4Nepal github repo, the UN Nepal Information Platform and Open Nepal.

[1] Individual Incident for reference

Approach and Deliverables

While the outcome will depend somewhat upon what trends are found, the initial approach will be to investigate the Nepal Monitor dataset itself for possible relationships.

First, the coverage of media sources can be plotted. This coverage can be cross referenced with the nature of the incidents to compare media coverage and find possible bias between various national and local sources. For instance, do sources in the Terrai cover incidents perpetrated by the police, more or less consistently than national sources? What about political or electoral violence? Correlations can be plotted using scatter plots and histograms, with matplotlib and/or seaborn. Next would be to combine the data with indicators from other sources - ei: rates of reported domestic violence can be normalized by population, and referenced against poverty and other development indicators. Do any of these indicators predict domestic violence? Input form the project would be utilized to find relationships the project has had an interest in exploring, but for which they haven't had the tools or resources. One possible area of exploration is measuring how Nepal is progressing in terms of sustainable development goal 16. Any interesting correlations found would be further broken down into full explorations.

Deliverables would include the codebase on github along with slides and images showing the relationships found and a paper explaining the methodology, Further articles based on the data, and possible training for Nepal Monitor staff would depend on findings.