Hypothesis:

By using a combination of Data Analytics technologies and Ethnographic methods we are able to obtain accurate predictions on the development of international crises in Asia.



These predictions should be specific and time bound. For example:



Tensions with **North Korea** have a probability of **95%** of becoming even more **negative** over the next **21 days**.



Tensions between **China and Japan** have a probability of **90%** of reversing and becoming more **positive** over the next **13 days**. To do this we need something objective to measure the predictions against. How do we measure the existence of more or less tension?



Tensions are reflected in negative sentiment in the news. Sentiment in the online news can be quantified over time using Data Analytics technologies.



What exactly are **Data Analytics** technologies? Every two months the total amount of information on the web doubles. Data Analytics allows us to make sense of that.



For this project we will rely on analytics provided by the firm **Recorded Future**.



C Recorded Future | About | Credits | Public Gallery

News sentiment from Recorded Future is then organized over time in the form of a line chart.



Now that we have a way to objectively measure tensions we may turn our attention to the next question: How do we make a prediction? First, we look for recurring patterns in the past.



Next, we identify the common characteristics to all of those events in the past, by looking at what was happening in different subtypes of data, such as the number of comments to mainstream news articles, the number of blog posts, and the frequency of Google search trends.



Lastly, we ask what is happening in real time data. If circumstances in the subtypes of data are the same as they were in the past, a signal is made.



This procedure requires us to quickly sift through very large amounts of data, too much for humans to manage. But it can be done with algorithms.



To this end I have developed an algorithm called **Social Risk Analysis** (SRA) because it looks at relations between social phenomena (behavior) and quantifies risk as a percentage of possibility.



However, algorithms often fail to properly contextualize random or unexpected events. Human perception is necessary to make the connections that machines cannot possibly be programmed to look for in advance.



Ethnography is a methodology used to uncover hidden dynamics. By contacting a network of local informants and interlacing their opinions with information from other sources, such as academia and think tanks, we get an Ethnographic Review.



Through Ethnography, we get information that we cannot get through Data Analytics. For example, we learn that the Senkaku/Diaoyu Island dispute is used by both China and Japan principally for domestic political purposes – a point which is rarely highlighted in the international media.



We can then use this Ethnographic Review to **confirm** the signals created by the Social Risk Analysis. This combined approach increases the accuracy rate.



There is an increased reliance on automated intelligence by analysts. The methodology put forth here builds on that trend by applying algorithms to social phenomena and then integrating them with human analysis.



Does this work? Yes, it is possible to obtain accurate predictions on the development of international crises in Asia. Here are some examples. The accuracy rate in all cases exceeded 80% in the past two years.

Senkaku/Diaoyu Islands

North Korea



Spratly Islands

Mindanao



Burma/Myanmar

Thailand



Value added # 1: this type of semi-automated analysis helps avoid emotionality and vagueness (mainstream media) or informing conclusions with a political agenda (think tanks).



Value added # 2: developments concerning international crises can be correlated with the fluctuation in price of particular economic assets.

Thailand

