

Intelligence analytics: intelligence analysis + mathematical analytics

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Hello and welcome to my column about Intelligence Analytics. Its focus is the cross over between Intelligence Analysis and Mathematical Analytics, which I call Intelligence Analytics. We have all seen in fictional storylines and TV shows, where the use of data solves crimes, brings down the bad person and saves the day. Of course there is much exaggeration, over simplification, and of course there is always perfect data, and lots of data available.

Now, when we deal with the real world, things are never that fast or easy. However, mathematics, data mining and modelling has contributed to solve crimes, reduce risks, and preventing criminal events.

When we get down to it, we all use maths every day in our lives, but we don't always think about where we can use maths in our intelligence careers. This is because of a number of reasons:

- we don't think we are maths people,
- maths can't possibly measure what we need,
- there is not enough data,
- maths is something other people do,
- I don't have the skills I need, etc.

I'm sure we can think up lots more. But on the other side of the coin:

- maths can help us tell a story,
- maths can help us join pieces together,
- mathematical modelling can uncover patterns,
- maths can help solve a case, and
- maths has helped to save many lives all around the world.

Before I continue, I want to get one thing straight. Maths can not do it all, it is not meant to replace you, it is not meant to take away any part of your job. Indeed without the Intelligence Analysts perspective, data mining, analytics, and computer modelling is useless, because it has no context without the Analyst to interpret and incorporate the results into the problem / case at hand.

What I intend to do in this column, is point you to resources, share open source tools, and tell you about various methods used in the intelligence process. I hope you will find these columns helpful and informative, making your job easier and helping you to get better results.

So you know a little about me, I am an Intelligence Officer who uses mathematical analysts and pat-

tern recognition to profile people and environments, as well as uncover factors in events.

I failed mathematics at school, and was never good at maths in university. Now, I develop new techniques, help mentor different people, and advise all levels of Australian Government, as well as to the corporate sector. I am a supporter of Analyst First, a movement which puts people before software.

However, I could not really end, with out a few suggestions. Did you know that there is software freely available, that will text mine a document, or website, and produce lists of words, draws relational maps of the most used terms, and that is just the beginning.

There are tools of analysis which use what is called Random Forest, to make 500 decision trees, and then tell you just how well the model will predict a future event. There are free online tutorials on how to use maths to improve the intelligence product.

Maths and Analytics give the intelligence analyst a scientific platform to support their logic and deductions, combining together to make quality reports. Until next time!