GIRO 2016 Pricing Plenary
Ed Tredger
Senior Pricing Actuary, Novae
This talk has 3 motivations

• To explain what is meant by big data and machine learning

• So does it really work?

• The ‘Deep blue’ test - will machine learning take our jobs?
What is machine learning? Big data?

Based on your internet history, you might be dumb enough to enjoy extreme sports.

Click here to buy a ticket to base jump from the international space station.

I think the internet is trying to kill me.

We call it "machine learning."
Machine learning means computers do the hard work
Does it work?
But does it really work?
Can a computer really pick out patterns?
Yes, but it may not pick out outliers very well
Over-fitting and outliers are big issues
The key is understanding out of sample predictive skill
The Beer-Mat test – do we know why it works?
Expert Judgement vs big data
Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

The views expressed in this presentation are those of the presenter.