

Ministry of Justice Chooses IBM SPSS Predictive Analytics to Help Make Streets Safe

Turns to Business Analytics to Analyse 4 Million Prisoner Records to Predict the Likelihood of Prisoners

Re-Offending

The UK Ministry of Justice is using predictive analytics technology from SPSS, an IBM Company, to assess the likelihood of prisoners re-offending on their release and to ultimately help improve public safety.

One of the UK's largest government departments with more than 95,000 employees and a budget of 9.2 billion, the Ministry of Justice is using predictive analytics to assess the data held within its Offender Assessment System (OASys). In addition, the analysis is helping the Ministry of Justice develop treatment targets for prisoners throughout their sentence to reduce the probability they will commit crimes upon their release.

The OASys system is used across approximately 140 prisons and all probation areas in England and Wales, and records information from over 3.4 million prisoner assessments. This includes data on individual offender circumstances such as accommodation, education, relationships, financial management and income, lifestyle and associates, drug and alcohol misuse, emotional well-being, behaviour and attitudes.

These records are being used for quantitative analysis which can identify patterns within the data. The resulting intelligence forms the basis for improved measurements of offender risk and need. Both the OASys Violence Predictor and OASys General Re-offending Predictor have helped to substantially improve predictions about re-offending. In the case of violent crime, the prediction about re-offending has improved from 68 to 74 per cent whilst the prediction about re-offending in terms of general offences improved from 76 to 80 per cent.

With IBM SPSS predictive analytics technology, the Ministry of Justice is analysing hidden trends and patterns within the data. For example, the technology helps identify whether offenders with specific problems such as drug and alcohol misuse are more likely to re-offend than other prisoners.

With almost 4 million records on file it simply wouldn't be feasible to trawl through this data manually in an attempt to identify those factors that may mean a prisoner is likely to re-offend, said a spokesperson from the Ministry of Justice. SPSS technology gives us valuable insight into offender data helping us predict who may re-offend and enabling us to advise on preventative measures, such as appropriate programs addressing offender behaviour before a prisoner's release date.

The way the Ministry of Justice is using our technology showcases the high-level capabilities of our software in providing analytical predictions upon which actions can be taken, explained Ian Warner, Public Sector Consultant at SPSS, an IBM Company. By identifying trends and patterns hidden within the data, SPSS is helping the Ministry of Justice predict re-offending rates and take steps to meet government targets to improve public safety by reducing the danger to the general public and work towards a smarter government.

Today's business leaders need to move beyond intuition to insight, from gut feel to facts as it is now possible to see key patterns in vast amounts of data, to extract critical insights and move to a new level of intelligence, Warner said. IBM SPSS predictive analytics is helping government agencies around the world to transform the way they operate by making smarter decisions and improve citizen service.

The new predictive analytics system is powered by IBM SPSS Statistics software, IBM SPSS Modeler data mining workbench and IBM SPSS Text Analytics software.

Today's announcements are part of IBM's ongoing focus on helping clients use their information as a strategic asset through Business Analytics and Optimisation. IBM recently created a new Business Analytics & Optimisation services organisation, with 4,000 consultants who can help clients get up and running with deep analytics capabilities, and invested more than \$12 billion in organic growth and innovation to further build its analytics portfolio.

About SPSS, an IBM Company (<http://www.spss.com> <<http://www.spss.com>>)

SPSS, an IBM Company, is a leading global provider of predictive analytics software and solutions. The Company's complete portfolio of products data collection, statistics, modeling and deployment captures people's attitudes and opinions, predicts outcomes of future customer interactions, and

then acts on these insights by embedding analytics into business processes. SPSS Solutions address interconnected business objectives across an entire organisation by focusing on the convergence of analytics, IT architecture and business process. Commercial, government and academic customers worldwide rely on SPSS technology as a competitive advantage in attracting, retaining and growing customers, while reducing fraud and mitigating risk. SPSS was acquired by IBM in October 2009. For more information, please visit www.spss.com Further information: Scott Pettet LEWIS PRPh: +61 2 9409 3100 Email: scottp@lewispr.com