TALENTSPOTTER.EXE

The top five automated talent spotters

"Music Xray conveys a great deal of information that's very useful for a band's promo efforts"

FINE TUNE

Music Xray is a computer algorithm that measures the mathematical properties of songs. A neural network – software that can remember information and learn from it – then compares the song's data with that of past hits and determines the likelihood that the new track will be a hit. The software reassured a doubtful Warner Music that they would recoup their investment with Gnarls Barkley's 2006 single *Crazy*, which duly topped the UK singles chart for nine weeks.

DOWNLOAD MINER

Professor Yuval Shavitt and his student Noam Koenigstein, at Tel Aviv University, have developed a system that can predict the hit bands of tomorrow. It uses the file-sharing network Gnutella, which allows members to access music stored on each other's computers. The software logs the location of each MP3 download to spot bands that are gaining a regional following – a good sign they're destined for national success. It's accurate up to 50 per cent of the time.

SCORE THE SCRIPT

UK-based company Epagogix uses neural networks to advise Hollywood on the commercial potential of movie scripts. Human readers assign scores to hundreds of variables in a script's content. The neural net then compares these scores to those of previous movies with known box-office receipts to forecast how much a production of the new script is likely to make. Epagogix predicted that the 2007 movie *Lucky You* (left) made for $50 million, would tank. It made just $5.7m in the US and Canada.

MOVIE MARKET

The Hollywood Stock Exchange (www.hsx.com) also aims to predict a movie's success. The site lets anyone buy and sell virtual stock in new releases. Market forces push up prices of movies anticipated to do well, and drive down the suspected turkeys. A movie's trading value doubles as a forecast of its box office performance in millions of dollars. It's remarkably accurate. *The Da Vinci Code* was predicted to earn US$72.3m in its first three days – it actually made US$77m.

VIRAL VIDEOS

Professor Didier Sornette and colleagues, at the Swiss Federal Institute of Technology, have a system that can spot future viral videos on YouTube. The team saw how viral videos grow slowly as word of mouth spreads across social networks, but then enjoy huge long-term popularity. The team were able to isolate the tell-tale signs in the early growth of a video that's set to go viral – enabling them to predict YouTube's biggest hits with 80 per cent accuracy.

""I move away from the mic to breathe in