Table talk

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Published: January 19 2008 02:00 | Last updated: January 19 2008 02:00

Feng shui is all very well, but the next time you decide to redesign the layout of your office space you might consider calling an economist. That's because an astonishing new set of data from Google - where else? - has allowed economists to track something that had been utterly ethereal: the flow of information around a physical office space.

The data come from Google's trials of something called an internal prediction market. Prediction markets are most famously used to forecast presidential elections. If Barack Obama is trading at 35 cents on the Democratic nomination market, that is what punters are willing to pay for a ticket that will pay a dollar if and only if he wins the nomination. In that case the market is giving Obama a 35 per cent chance.

Prediction markets aren't perfect, but they often beat alternative forecasting mechanisms. That is why some companies have started to experiment with them by asking their own employees to bet on sales and revenue figures - the alternative being to rely on the bureaucracy's own forecasts, which are often made by people with a vested interest in sitting on bad news.

Google is not the first to try: according to Bo Cowgill, of Google's economics group, and academic economists Eric Zitzewitz and Justin Wolfers, other pioneers include ArcelorMittal, Chrysler, Eli Lilly, General Electric and Hewlett Packard.

The markets seem to work quite well. But that is not the most interesting thing to emerge from the analysis by Cowgill and his co-authors. By looking at which Google employees trade in which markets (betting on, for instance, how many users Google's Gmail service will attract by the end of the quarter) and on which side of the trade, they have a good idea about who has what information. And by looking at who else makes similar trades, they can draw conclusions about who has similar information at similar times.

If this was an ordinary company, the researchers might try to correlate information with the organisation chart, and that would be about all there was to say. But this is Google. Cowgill, Zitzewitz and Wolfers had the precise GPS location of each desk (Google offices are open-plan). They had information about which employees were on the same e-mail listings, such as the poker group. From a survey, they had a list of each employee's friends. They knew which bosses they worked for, which projects they worked on, and where they went to college. All they lacked were the names of the employees, which were stripped out of the database.

The results were striking. Clear correlations existed between the trading behaviour of certain groups of employees. But they were not explained by shared interests or by social connections. Having the same immediate boss only explains a little about information flows.

No, it is the office layout that matters: people who sit near each other tend to know the same things, as evidenced by making similar trades on the prediction markets. Social and professional proximity matters very little for the flow of information: physical proximity is almost everything.Specialists in organisational behaviour have known for a while that people tend to interact much more with those who sit nearby, but it has never been clear whether that was just social grooming. Now we know that real information is flowing.We keep being told that because of cheap, ubiquitous communication technology, distance is dead. But if there was ever a company that we should expect to exemplify that idea, surely it was Google. This research suggests that it is as important as ever to be sitting in the right place.Tim Harford's new book, "The Logic of Life", is published on February 1.