Matthew Reisz meets reluctant Facebook darling Andy Field, the Harry Potter of the social sciences

Sex, drugs and stats

Many authors get fan mail, but it must be a rare experience for those who write statistics textbooks. For publishing phenomenon Andy Field, however, it's pretty much par for the course, from musical tributes on YouTube to online accolades proclaiming him a "legend" and a "rock star".

"I am no longer crying, swearing, sweating or threatening to jack in this stupid degree just because I can't do the statistics," wrote one student. "Bring it on, you nasty exams. This candidate is Field-trained."

Discovering Statistics Using SPSS may not sound like a bestseller (even for those who know that SPSS refers to a computer program called the Statistical Package for the Social Sciences), but the book's first and second editions between them shifted 100,000 copies, making the volume the closest thing to Harry Potter for the UK arm of SAGE Publications. It also won the British Psychological Society's annual book award in 2007.

Field, however, seems astonished to have received floods of "purely gushing endorsements": perhaps 200 or 300 emails, he recalls, for the first edition published in 2000 and at least 400 more for the second, which appeared in 2005. He admits that he sometimes finds it embarrassing and even unsettling to read comments posted on Facebook groups and other online forums by his enthusiasts.

Common themes, he reports, include "You saved my life"; "I thought statistics was really boring until now"; "I read it from cover to cover". It is, he says, "all about engagement and how these students achieved more on their courses than they would otherwise have done, because the book explained things clearly but also made them enthusiastic to read more."

Signs are that the book's third edition, published in March, is doing even better than the first two. So what is the secret of Field's success? He is now a reader in psychology at the University of Sussex, where he researches child anxiety. Yet he started writing textbooks when he was young, still a student at heart – and nobody had told him what he was allowed (or not allowed) to do.

"It was complete serendipity, really," Field says. "I was doing some teaching when I was a PhD student and made some handouts with wacky examples that seemed

> **" Why not base an example around the claim that Coca-Cola is an effective contraceptive? One can always invent a scientist called Dr Jack Q. Late to investigate it "**

to go down well with the students. I got talking about them to someone who was an academic writing a book for SAGE, and who had been asked to look out for new authors."

When he teaches clinical psychology, Field is obviously constrained by the need to set out the current state of knowledge and to deal with some very serious material. Statistics, by contrast, is an area "where you can use your imagination. To illustrate data or analysis, you can pick examples out of your head and make them as weird and wacky as you like."
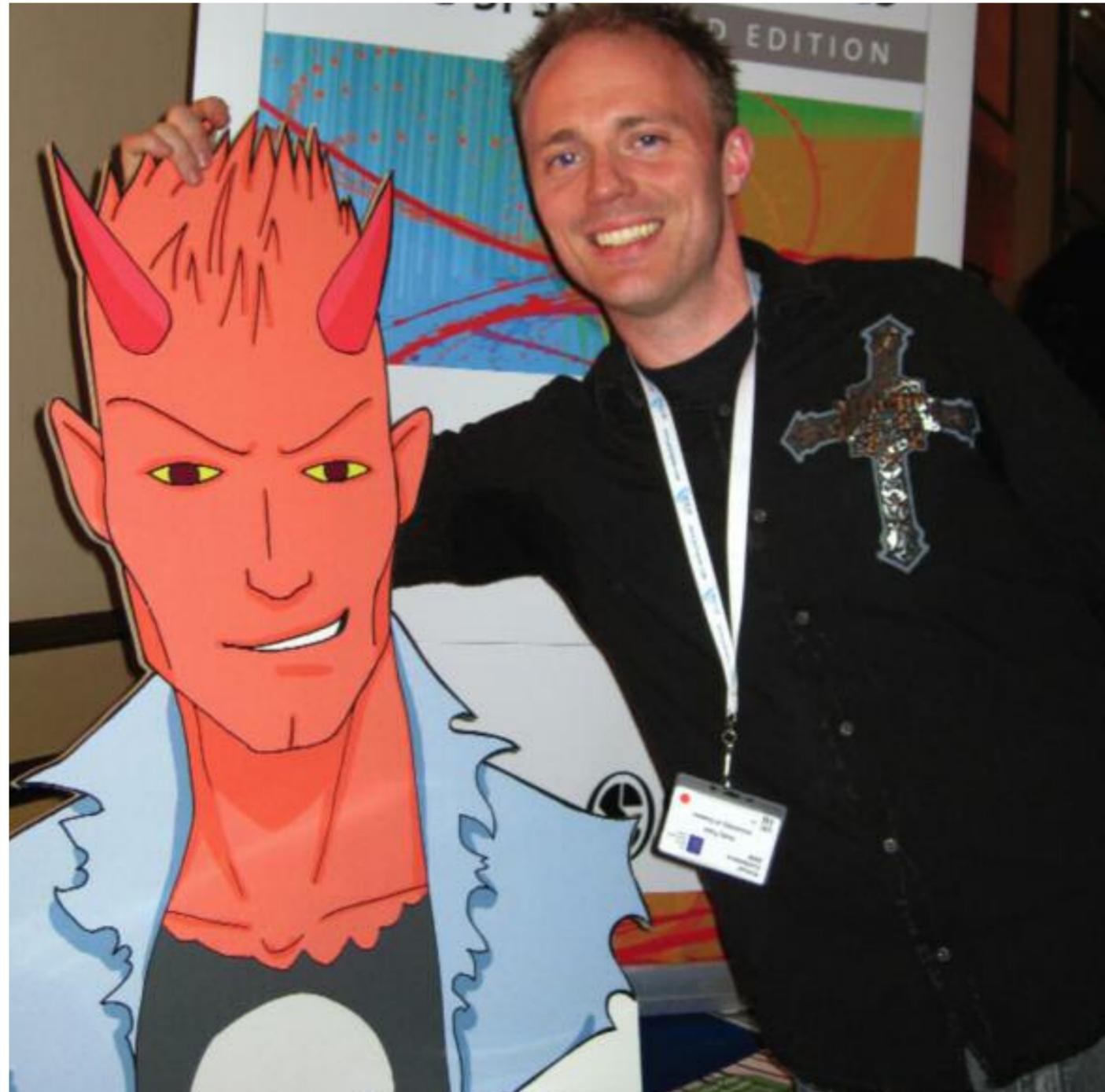
Many textbook writers fall back on dull and obvious examples, such as the proportion of faulty widgets coming off a production line. Instead, Field has said he deliberately draws on "topics that play on the minds of the average student (ie, sex, drugs, rock'n'roll, celebrity, people doing crazy stuff)… by the end, for better or worse, I think you will have some idea of what goes on in my head on a daily basis".

There is plenty of amusingly daft research around, where solid statistical methods are used to test ridiculous theories. Why *not* base an example around the claim that Coca-Cola is an effective contraceptive? One can always invent a scientist called Dr Jack Q. Late to investigate it.

In the latest version of the book's chapter on logistic regression, Field says, "I changed the main example from one about theory of mind (which is now an end-of-chapter task) to one about putting eels up your anus to cure constipation (based on a true story). Does this help you understand logistic regression? Probably not, but it really kept me entertained for days."

In another unusual move (which few publishers would have dared suggest), Field opted to give his textbook the personal touch. "In the new edition, for a bit of a laugh, I wanted to have a non-statistical tale running through it, and I decided to weave in stories from my life, very tenuously related to the topic of the chapter. Each chapter is bookended by such material. I think students are curious about the people who write these books."

Since about half his teaching covers statistics modules, Field is well aware that students choose psychology courses because they

Statistics Hellboy 'I changed an example from one about theory of mind to one about putting eels up your anus to cure constipation (based on a true story)'

want to learn about child development or sexual differences rather than chi-square tests or scatter plots. Something similar applies across a wide range of disciplines – from business, management and sociology to biology, medicine and sports science. In all these areas, statistics may be a necessary evil, an essential tool for tackling the important questions, but they are normally seen by students as only a means to an end.

The good news is that there's a huge market for a general overview of statistics for non-mathematicians. The bad news is that students who are not particularly numerate often find the subject both boring and challenging.

"A lot of textbooks don't incorporate an appreciation of how difficult students find statistics," Field explains. "We *all* struggle with these techniques. Plenty of psychology professors are not stats experts and find them hard going.

"Some textbook writers almost take the attitude: here's the information and if you don't understand it, it's your fault for being a bit stupid." It is precisely by empathising with students' difficulties that Field – whose humorous and eye-catching personal website can be found at StatisticsHell.com – has proved so popular with them.

Field may be particularly good at empathy, but his communicative strategies are not particularly startling. When we read non-fiction for pleasure, we all prefer the writers who make an effort to keep us interested, understand what we are likely to find difficult and incorporate amusing digressions. Long books are usually more enjoyable if something of the author's personality comes through.

So why don't more textbook writers keep these basic principles in mind?

Given the priorities in today's universities, Field argues: "The average academic publisher is trying to get academics to do something that is not massively financially rewarding and won't get them much kudos – and which they are going to have to do in their spare time. Textbook writers often don't have the energy to go the extra mile." Beyond natural talent, he says, his only secrets are "working very hard and not yet having children".

As Discovering Statistics Using SPSS continues to clock up sales and rhapsodic fan mail, it is sobering to reflect that it could very easily not have been written.

"Had it not been successful," Field claims, "writing a stats book would have been career suicide. I was just finishing off my PhD and should have been publishing research papers.

"But as it turns out, I'm much better known for this book than I'll ever be for my research. I can't imagine anything else I do having as much impact on the world."