

Seminar

Making robot statistical reviewers

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The highest paid players in the English Premier League earn over £20 million per year, which is over 100 times the earnings of the top referees. Experienced referees are in short supply and too few junior referees are being trained to fill the shortage.

Medical statisticians are in a similar position: we are essential for medical research but lack adequate support. Highly qualified statisticians are hard to find and often busy. There are excellent graduate and postgraduate courses in statistics, but they are woefully undersubscribed. There are no national schemes to fund statisticians and we have even been excluded from some funding opportunities. Without qualified guidance, many researchers do their own statistical analyses with sometimes disastrous results. Statisticians frequently have to pushback against common statistical myths when talking with non-statistical colleagues and peer reviewers.

I will discuss whether robot reviewers could partially fill some statistical gaps. A robot statistical reviewer would "read" a submitted research paper and create a report showing where the authors' statistical methods were incomplete or incorrect. I'll show our robot that tries to repeat sample size calculations from registered trials. The English Premier League recently enhanced referees' decisions using video technology, to mixed reviews. Likewise, robot statistical reviewers will never be perfect, but they could provide much needed guidance for those researchers who currently get no advice, or worse, faulty advice.

Professor Adrian Barnett is a statistician with a degree in statistics and PhD in mathematics. He has over 24 years' experience in analysing medical data. He has co-authored two statistical text books with Professor Annette Dobson, most notably a popular book on generalised linear models. He was president of the Statistical Society of Australia from 2018 to 2020. His current focus is on meta-research, which uses research to improve research practice.

Thursday 23rd June
9:30-10:30am AEST

This event will be streamed via Zoom.

Please [click here](#) to join

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