Animal Analysis AI statement

As artificial intelligence (AI) becomes increasingly more widespread, there are understandable concerns related to its use. We believe transparency on how AI is used is an important part of the ethical use of AI. This statement is designed to transparently communicate to our clients how we may use AI at Animal Analysis.

Security and privacy

It is important to us that researchers know their personal data, institutional affiliations, funding sources, and research data is safe and secure if shared with us. As such, we will never share this data with any AI tools unless it is expressly a pivotal part of a project, and use of data this way has been agreed with the client in advance.

Further, specific scientific and statistical results are not shared with any AI tool, so researchers can be assured that their novel results and research findings cannot be accessed by any AI company.

On some projects, we may be required to produce a report for the client. In such cases, all written reports are produced by a human and **not** shared (e.g. for proof-reading or generating reports) with AI.

Generic statement on use of AI

Broadly speaking, our use of AI can be summarised as follows. We may use AI as a sounding board and as a critic: for brainstorming, for adversarial checking of mathematical and statistical arguments, and for directing us towards relevant existing literature and theory. Short utility code functions may be drafted with AI assistance. However, all arguments, experiments, interpretations and conclusions are verified by a human, and Animal Analysis takes full responsibility for the work we do on any given project.

Uses of AI at Animal Analysis which retains human oversight

We will never ask AI to do any modelling for us, but we may have discussions with generative AI about generic data structures, modelling goals and options. For example, we may ‘chat’ with generative AI as a form of ‘brainstorming’ modelling options and to help direct us toward any relevant scientific and statistical literature. If we think something AI has suggested holds weight, we will always investigate that further ourselves rather than trust an AI suggestion blindly.

We may use AI as one of many ways to help us understand and learn about a new model. For example, if we are new to a particular class of model, we may have a 'chat' with AI about some fundamentals of the model to gain an initial insight about it or to help aid our understanding about certain aspects of a model.

We will sometimes use AI as a coding tool. That is, we may use generative AI to help us spot or iron out bugs in any code we have written. For example, suppose we have written some R code to perform a Monte Carlo simulation to estimate statistical power for a given effect size from a complicated model which does not have an analytic power solution, but the simulation is giving us some unexpected results. We may send the code to an AI tool as part of debugging. Any errors or bugs that AI identifies are checked by a human rather that blindly assuming the AI was correct. For very simple coding tasks, AI may sometimes be used to write short utility functions (which a human will verify). We may also use AI to help us identify relevant packages or functions to achieve a coding goal. For example, we may know what we want a section of code to do, but before writing a function ourselves, we may ask AI if they can identify any packages or functions that already exist that perform the same task. We can then investigate the suggested packages/functions to check that it does indeed actually do what we want, which we can then incorporate into our code.

Accountability

Responsibility for all work conducted and produced by Animal Analysis sits with us and not AI.

Declarations on our use of AI

Where necessary, we will include declarations on how AI has been used on a particular project.