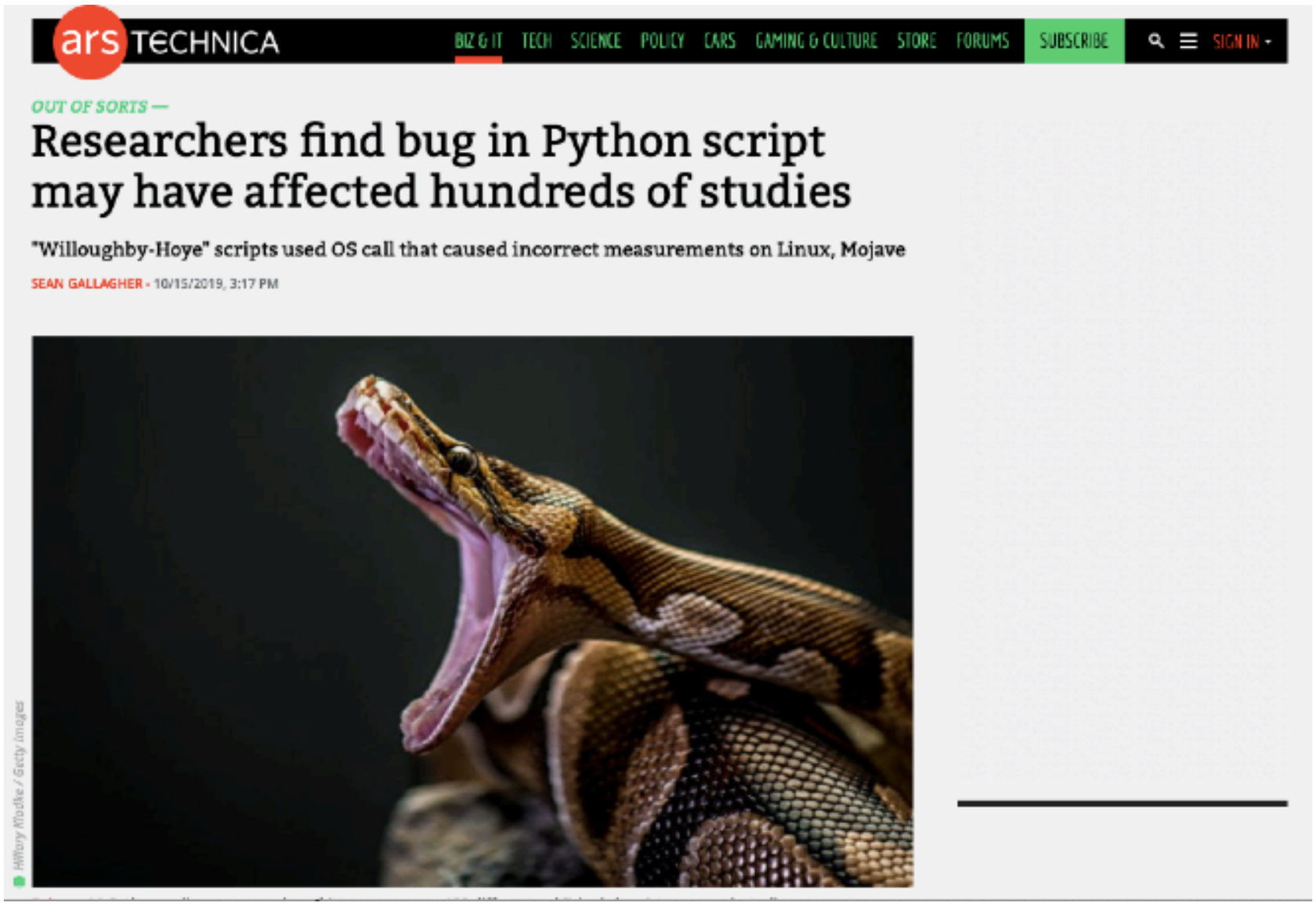
- Open software allows for transparency and reproducibility in your data processing, wrangling, visualisation modelling etc.

- It allows others to spot and correct errors...



https://arstechnica.com/information-technology/2019/10/chemists-discover-cross-platform-python-scripts-not-so-cross-platform/

Open source can adapt quickly to the world - e.g., mixed models

- Mixed models give a good balance of Type I and Type II error - operate over individual data points rather than aggregate data, allow for unbalanced designs, combinations of continuous and categorical fixed effects, modelling of multiple random effects and covariates associated with those effects. Allows for modelling assuming sample under Gaussian and other (e.g., Gamma, binomial) distributions.

- Go to package in R is `lme4` - arguably responsible for increased statistical rigour in psycholinguistics.

- This open source approach to mixed models is much more advanced/easier than what can be done using proprietary software (e.g., SPSS).