Summary post:

The case study of Abi, a statistical programmer and researcher, highlights critical ethical dilemmas in data analysis and reporting. The primary ethical concern is the potential for selective presentation of data, which, even without falsification, can be misleading and unethical (Correia, 2023). As a researcher, Abi is bound by principles of respect, honesty, fairness, care, and justice (Craig, 2022), necessitating a comprehensive and transparent presentation of findings.

Abi's ethical obligation extends to presenting positive and negative analyses, aligning with the BCS (2022) Code of Conduct, particularly principles 1.a and 2.f, which emphasise public well-being and avoiding harm through falsification. The Association for Computing Machinery's (2018) Code of Ethics further reinforces the importance of trustworthiness in our profession.

While Abi cannot control how others use his results, he bears responsibility for ensuring clear, comprehensive, and transparent reporting (Bos, 2020). To mitigate potential misuse, Abi should include disclaimers and recommendations for independent verification (British Educational Research Association, 2019).

From a legal perspective, adhering to ethical guidelines and providing transparent reports can protect Abi from potential repercussions if the data is misused or misrepresented (UK Parliament, 2023). If discrepancies arise between original findings and presented results, documenting and reporting these to relevant professional bodies is crucial (Logullo et al. 2024).

The ethical implications extend beyond individual actions to broader societal impacts. Maintaining integrity in data analysis and reporting is essential for long-term credibility and public trust (Ortega-Rodríguez et al. 2020). As a statistical programmer and

researcher, Abi must balance his professional obligations with potential legal, social, and reputational impacts, always prioritising accurate and complete data presentation (Saltz & Dewar, 2019).

References:

Association for Computing Machinery (2018) *ACM Code of Ethics and Professional Conduct*. [online] Association for Computing Machinery. Available from: https://www.acm.org/code-of-ethics [Accessed 26 Jun. 2024].

Bos, J. (2020) Research Ethics Step by Step. Research Ethics for Students in the Social Sciences, pp.227–273. Doi: https://doi.org/10.1007/978-3-030-48415-6_10.

BCS (2022) BCS, THE CHARTERED INSTITUTE FOR IT CODE OF CONDUCT FOR BCS MEMBERS. [online] Available from: https://www.bcs.org/media/2211/bcs-code-of-conduct.pdf [Accessed 26 Jun. 2024].

British Educational Research Association (2019) *Ethical Guidelines for Educational Research, Fourth Edition (2018)*. [online] BERA. Available from: https://www.bera.ac.uk/publication/ethical-guidelines-for-educational-research-2018-online [Accessed 14 Jun. 2024].

Correia, M.I.T.D. (2023) Ethics in research. *Clinical Nutrition Open Science*, 47, pp.121–130. Doi: https://doi.org/10.1016/j.nutos.2022.12.010.

Craig, V. (2022) Designing Ethical Research Protocols for Social Research: An analysis of key ethical elements in human participant research using a case study about timing child protection mediation. [Online] Available from: http://hdl.handle.net/1828/14159 [Accessed 13 Jun. 2024].

Logullo, P., Esther, Winchester, C.C., Tovey, D., Gattrell, W.T., Price, A., Harrison, N., Goldman, K., Chisholm, A., Walters, K. & Blazey, P. (2024). ACcurate COnsensus Reporting Document (ACCORD) explanation and elaboration: Guidance and examples to support reporting consensus methods. *PLoS medicine*, 21(5), pp.e1004390–e1004390. Doi: https://doi.org/10.1371/journal.pmed.1004390.

Ortega-Rodríguez, C., Licerán-Gutiérrez, A. & Moreno-Albarracín, A.L. (2020) Transparency as a Key Element in Accountability in Non-Profit Organizations: A Systematic Literature Review. *Sustainability*, 12(14), pp.1–21. Doi: https://doi.org/10.3390/su12145834.

Saltz, J.S. & Dewar, N. (2019). Data science ethical considerations: a systematic literature review and proposed project framework. *Ethics and Information Technology*. Doi: https://doi.org/10.1007/s10676-019-09502-5.

UK Parliament (2023) *Technology Rules? The advent of new technologies in the justice system.* [online]. Available from: https://committees.parliament.uk/publications/9453/documents/163029/default [Accessed 26 Jun. 2024].