Discussion 2 Topic: Case Study: Accuracy of information

Initial Post

by Noora Alboinin - Sunday, 15 June 2025, 6:29 AM

Number of replies: 2

Abi's case raises serious ethical concerns relating to the manipulation and presentation of data within professional computing and statistical practice. While it is clearly unethical to alter data (British Computer Society, 2021), presenting alternative interpretations—even if based on accurate data—can also become ethically questionable when selectively done to mislead stakeholders.

The core ethical dilemma in this scenario centres around *intent* and *transparency*. According to the ACM Code of Ethics, computing professionals must "avoid harm" and "be honest and trustworthy" (ACM, no date). Even if Abi performs technically valid statistical analyses to favour Whizzz, doing so to mask the unfavourable reality of the cereal's health implications would constitute a breach of ethical responsibility. The concept of "spin" in data analysis—where selectively favourable results are emphasised—has been criticised in academic literature for misrepresenting scientific integrity (Chavalarias et al., 2016).

Abi has an ethical obligation to present both the positive and negative findings to the manufacturer. Transparency supports informed decision-making, especially when public health may be affected. According to the Menlo Report, researchers should embrace principles such as *respect for persons*, *beneficence*, and *justice* when handling data (Finn and Shilton, 2023).

Legally, if Whizzz is marketed with misleading nutritional claims based on Abi's biased analyses, there could be violations under consumer protection laws such as the UK Consumer Protection from Unfair Trading Regulations 2008 (Legislation.gov.uk, 2008). Abi could be held indirectly liable for contributing to misinformation, especially if he knowingly provided a report designed to mislead.

Professionally, Abi risks his credibility and future career prospects if he prioritises client favour over factual integrity. Socially, manipulating findings or allowing misuse of results can erode public trust in both scientific research and technology professionals.

If Abi suspects the manufacturer will only use the favourable outcomes, he should consider issuing a full report clearly outlining the strengths, weaknesses, and limitations of each analysis. Furthermore, documenting the full methodology enhances accountability and protects his ethical standing.

In conclusion, ethical practice in data science extends beyond avoiding fraud—it requires responsibility, objectivity, and foresight. Abi must consider the broader implications of his work and act in a manner that upholds professional integrity, public welfare, and legal compliance.

References

- ACM (2018) *ACM Code of Ethics and Professional Conduct*. Available at: https://ethics.acm.org/code-of-ethics/ (Accessed: 15 June 2025).
- British Computer Society (BCS) (2021) *The Chartered Institute for IT – Code of Conduct*. Available at: https://www.bcs.org/membership-and-registrations/become-a-member/bcs-code-of-conduct/ (Accessed: 15 June 2025).
- Chavalarias, D. et al. (2016) 'Quantitative analysis of scientific bias: misreporting and spinning of research findings', *PLOS ONE*, 11(5), e0156072. Available at: https://doi.org/10.1371/journal.pone.0156072 (Accessed: 15 June 2025).
- Finn, M. and Shilton, K. (2023) 'Ethics governance development: The case of the Menlo Report', *Social Studies of Science*, 53(3), pp. 315–340. Available at: https://doi.org/10.1177/03063127231162329 (Accessed: 15 June 2025).
- Legislation.gov.uk (2008) *The Consumer Protection from Unfair Trading Regulations 2008*. Available at: https://www.legislation.gov.uk/uksi/2008/1277/contents/made (Accessed: 15 June 2025).

Summary Post

by Noora Alboinin - Sunday, 29 June 2025, 8:59 AM

Number of replies: 0

The discussion around Abi's case has brought forward a rich and multidimensional analysis of ethical, legal, and professional obligations in data reporting. My initial post argued that even when data is technically accurate, selective interpretation—if intended to mislead—violates the ethical standards outlined in the ACM Code of Ethics and the BCS Code of Conduct (ACM, 2018; British Computer Society, 2021). This was supported by Chavalarias et al. (2016), who warn against "spin" as a form of scientific misrepresentation.

Stephanie's response deepened the conversation by emphasising *methodological traceability* and the need for a clear division of professional responsibilities. Gelman and Loken (2014) stress that rigorous documentation and transparency are essential for reproducibility and public trust. Steneck (2006) and Macrina (2014) also highlight that ethical integrity is not the burden of one individual but must be reinforced institutionally.

Ali reinforced the legal and moral implications of Abi's actions, particularly under consumer protection laws. He agreed that technical correctness does not absolve ethical accountability. Drawing on McLennan et al. (2022) and Stahl et al. (2022), he emphasised that ethical responsibility in AI and data extends to reporting and interpretation. White and Hanley (2023) further remind us that digital professionals are accountable for public-facing outputs, especially when health and safety are concerned.

In conclusion, consensus emerged that Abi must uphold transparency, disclose all findings—including limitations—and act proactively if misuse is foreseeable. Ethical data practice is not just about avoiding falsehoods; it is about promoting truth, ensuring public safety, and preserving professional credibility.

References

- ACM (2018) *ACM Code of Ethics and Professional Conduct*. Available at: **https://ethics.acm.org/code-of-ethics/** (Accessed: 15 June 2025).
- British Computer Society (BCS) (2021) *The Chartered Institute for IT – Code of Conduct*. Available at: **https://www.bcs.org/membership-and-registrations/become-a-member/bcs-code-of-conduct/** (Accessed: 15 June 2025).
- Chavalarias, D. *et al.* (2016) 'Quantitative analysis of scientific bias: misreporting and spinning of research findings', *PLOS ONE*, 11(5), e0156072. Available at: **https://doi.org/10.1371/journal.pone.0156072** (Accessed: 15 June 2025).
- Gelman, A. and Loken, E. (2014) 'The statistical crisis in science', *American Scientist*, 102(6). Available at: **https://www.americanscientist.org/article/the-statistical-crisis-in-science** (Accessed: 16 June 2025).
- Macrina, F.L. (2014) *Scientific integrity: Text and cases in responsible conduct of research*. 4th edn. Washington, DC: ASM Press.
- McLennan, S., Fiske, A., Tigard, D. *et al.* (2022) 'Embedded ethics: A proposal for integrating ethics into the development of medical AI', *BMC Medical Ethics*, 23, 6. Available at: **https://doi.org/10.1186/s12910-022-00746-3** (Accessed: 22 June 2025).

- Stahl, B.C., Antoniou, J., Ryan, M. *et al.* (2022) 'Organisational responses to the ethical issues of artificial intelligence', *AI & Society*, 37, pp. 23–37. Available at: **https://doi.org/10.1007/s00146-021-01148-6** (Accessed: 22 June 2025).
- Steneck, N.H. (2006) 'Fostering integrity in research: Definitions, current knowledge, and future directions', *Science and Engineering Ethics*, 12(1), pp. 53–74. Available at: **https://www.researchgate.net/publication/7275253_Fostering_Integrity_in_Research_Definitions_Current_Knowledge_and_Future_Directions** (Accessed: 16 June 2025).
- White, E. and Hanley, T. (2023) 'Therapist + social media = mental health influencer?', *Counselling and Psychotherapy Research*, 23(1), pp. 1–5. Available at: **https://doi.org/10.1002/capr.12577** (Accessed: 22 June 2025).