Collaborative Learning Discussion 2

Discussion 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.

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Peer Response

by Stephanie Irina - Monday, 16 June 2025, 9:43 PM

The contribution accurately highlights fundamental issues related to ethical responsibility in the presentation of statistical results, notably the importance of transparency, integrity, and the duty to raise concerns when public risk is involved. These elements align with the expectations outlined in professional codes of conduct that govern scientific and analytical practice (National Academies of Sciences, 2017). Two complementary dimensions further deepen this ethical analysis: methodological traceability and the clarification of professional boundaries within the broader chain of responsibility.

First, methodological traceability ensures that all analytical decisions (from variable selection to the application of statistical treatments) are rigorously documented and verifiable by third parties. Gelman and Loken (2014) argue that the absence of clear documentation constitutes a direct threat to scientific integrity, as it undermines both transparency and reproducibility. In Abi's case, this means that beyond presenting final results, he is ethically required to disclose the methodological steps that led to those results, enabling a comprehensive and honest assessment of his analytical work.

Second, it is essential to delineate roles and responsibilities in collaborative projects involving sensitive or publicly impactful data. Steneck (2006) reminds us that researchers and analysts are accountable for the quality, clarity, and interpretability of their work, but not for the ultimate use of that work by other actors such as communicators, marketers, or

regulatory authorities. From this perspective, Abi must act with rigour, raise concerns when misuse is foreseeable, and document his process thoroughly, yet he should not be held responsible for decisions beyond his functional scope. In this context, professional ethics go beyond statistical accuracy or individual intent. They demand procedural transparency and a clear distribution of responsibility within institutions. Vigilance cannot rest on a single actor; it must be shared and structured through common frameworks. Macrina (2014) further emphasises the need for explicit, institutionalised ethical structures that support coherent coordination among all parties involved.

References:

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Peer Response

by Ali Alzahmi - Monday, 23 June 2025, 8:39 PM

Noora, your post is significant in considering the ethical and legal issues relating to Abi's actions as a data professional. I greatly concur with your point: If Abi does not edit raw data, his biased reporting on positive outcomes of Whizzz cereal is a form of ethical manipulation, especially in cases where there is a concern for public health. McLennan et al. (2022) claim that embedded ethics must apply to all the processes of medical AI and data development, including analyses and reporting. Abi neglects the duty of beneficence and contravenes transparency, the essence of ethical computing, by overlooking negative results.

You are correct that transparency and intent are paramount to this dilemma. The technical correctness of Abi analyses cannot be ignored, yet, as Stahl et al. (2022) argue, the organisational and individual responses to ethical questions in AI and data should focus on

societal rather than business good. By willingly giving a report that serves a biased story, Abi can succeed in contributing to malice not only in the courts but also ethically.

This is of particular concern to what you said about consumer protection laws. Abi may be indirectly liable when Whizzz is sold based on skewed or partial information. In this situation, it is not just a professional precaution to fully document all methods and restrictions but a moral obligation. This is confirmed by White and Hanley (2023), who demonstrate that digital professionals such as therapists and researchers should be held accountable for everything they produce in the public domain where aspects of interest are concerned.

Abi will have to take a firm step of providing a complete, transparent report and explaining any risks and uncertainties. Otherwise, he ought to resort to independent publication or whistleblower means. Responsible data science is not about not telling lies but rather about being true, keeping people safe, and ensuring that data can benefit the people.

References

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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

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