Initial Post

◄ Initial Post

Display replies in nested form

Settings

Initial Post

by Panagiotis Mourtas - Saturday, 8 February 2025, 5:41 PM

Initial Post

1) Analysis of correct data with different conclusions:

Abi can analyze the data in different ways, but he must remain objective and not distort the results. Scientific integrity requires transparency and accuracy (UKRIO, 2025).

2) Presentation of both positive and negative analyses:

Abi has an ethical obligation to present both positive and negative results. Selecting only one of the two may lead the interested audience to misinformation, which is both ethically and legally unacceptable (A. Menditto et al, 2007).

3) Responsibility for the use of the results:

Abi is responsible for the accurate presentation of the data and analysis. If the data and analysis are misleading, he could face legal consequences (C. Huded et al, 2013).

4) Actions if the manufacturer publishes only the positive results:

Abi can inform the manufacturer about the negative results and include them in his report. If the manufacturer chooses to publish only the positive results, Abi should submit or make the data available to the relevant authorities, as these results bear his name, thus carrying a weight of responsibility (D. B. Resnik, 2024).

In general, if Abi deviates from the above, he could face legal, social, and professional consequences. Legally, because he would mislead the public. Socially, because he would harm the scientific community and its integrity with unethical practices. Professionally, he would lose his credibility, damaging his career and future prospects (IMPERIAL, 2025).

Abi's analyses must be honest, impartial, and transparent.

References:

UKRIO (2025) What is Research Integrity? Available at: **https://ukrio.org/research-integrity/what-is-research-integrity/** [Acc
8 February 2025]

A., Menditto et al (2007) Understanding the meaning of accuracy, trueness and precision. Available at: **https://www.researchgate.net/publication/226202473_Understanding_the_meaning_of_accuracy_trueness_and_precision** [Accessed 8 February 2025]

C., Huded et al (2013) When Research Evidence is Misleading. Available at: **https://journalofethics.ama-assn.org/article/when-research-evidence-misleading/2013-01** [Accessed 8 February 2025]

D. B. Resnik (2024) What Is Ethics in Research & Why Is It Important? Available at: **https://www.niehs.nih.gov/research/resources/bioethics/whatis** [Accessed 8 February 2025]

IMPERIAL (2025) What is research misconduct? Available at: **https://www.imperial.ac.uk/research-and-innovation/research-office/research-governance-and-integrity/research-integrity/what-is-research-integrity/what-is-research-misconduct/** [Accessed 8 February 2025]

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Peer Response

by Daniel Malok - Sunday, 2 March 2025, 6:36 AM

Dear Mourtas,
I agree that Abi will face social, legal, and professional consequences for data manipulation.
Zhang et al. (2022) affirmed that researchers and firms should always disclose the correct data and validated research findings to protect their reputation with customers and the public while avoiding regulatory and legal consequences from the local and national government institutions. Zhang et al. (2022) indicated that research has demonstrated that some Chinese firms are not providing the correct data to the regulators about the impact of the pollution of the air as a result of their industrial and manufacturing activities. The researchers argued that this lack of full disclosure and incorrect data to the regulatory agencies could have dire legal and regulatory consequences for these firms. These consequences could include imprisonment of managers, heavy financial charges, and revocation of operational licenses.
According to Bos (2020), researchers should always avoid unethical behavior and misconduct in research. This misconduct includes falsification and data fabrication, plagiarism, research bias, and data augmentation. Bos (2020) affirmed that unethical research practices could negatively impact society in the long term. Researchers were, therefore, cautioned and encouraged to conduct their research ethically.

References
Bos, J. (2020) Research ethics for students in the social sciences. Basingstoke: Springer Nature. DOI: https://doi.org/10.1007/978-3-030-48415-6_2
Zhang, S., Zhang, M.A., Qiao, Y., Li, X. & Li, S. (2022) Does improvement of environmental information transparency boost firms' green innovation? Evidence from the air quality monitoring and disclosure program in China. Journal of Cleaner Production 357 131921. DOI: https://doi.org/10.1016/j.jclepro.2022.131921

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Re: Peer Response

by Panagiotis Mourtas - Monday, 3 March 2025, 10:39 AM

Peer Response

Hello Malok,
Thank you for your response, I appreciate that.

The core issue in this matter lies with the auditors, as even researchers are human and can make mistakes or reasonable omissions. Therefore, the focus should be on ensuring that these errors or oversights are identified in a ti[illegible]fore publication, by independent auditors who are not influenced by the entities they are certifying (PwC, 20[illegible] emphasizes, ethical research practices are essential to maintaining public trust and avoiding long-term so[illegible]

crucial that these auditors remain impartial and are not financially compensated by the same companies they are tasked with evaluating, as this could compromise their objectivity.

Additionally, the integration of AI technology into the auditing process can significantly enhance the speed and accuracy of these checks. AI systems can quickly analyze large datasets, flag inconsistencies, and reduce the risk of human error, while also incorporating multiple layers of security protocols to ensure the highest possible level of reliability in the results. Yuntian et al. (2023) highlight the importance of transparency in data reporting, particularly in environmental contexts, where misinformation can lead to severe legal and regulatory consequences. AI can play a pivotal role in addressing these challenges by providing efficient and unbiased verification mechanisms. However, as Binns (2018) argues, it is essential to establish robust ethical and operational frameworks to govern the use of AI in auditing, ensuring transparency, fairness, and accountability.

In conclusion, while researchers may inadvertently make errors, the responsibility for timely detection and correction lies with independent auditors. The adoption of AI technology, guided by strong ethical principles, can further strengthen this process, ensuring that research findings are both accurate and trustworthy.

References:

J., Bos (2020). Research ethics for students in the social sciences. Available at: https://core.ac.uk/download/pdf/344665944.pdf [Accessed 3 March 2025]

R., Binns (2018). Fairness in machine learning: Lessons from political philosophy. Available at: https://proceedings.mlr.press/v81/binns18a.html [Accessed 3 March 2025]

PwC (2017) Understanding a financial statement audit. Available at: https://www.pwc.com/im/en/services/Assurance/pwc-understanding-financial-statement-audit.pdf [Accessed 3 March 2025]

X., Yuntian et al. (2023) Exploring the Impact of Firm Transparency on Green Innovation Legitimacy: Empirical Evidence from Listed Companies in China. Available at: https://www.mdpi.com/2071-1050/15/13/10104 [Accessed 3 March 2025]

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Peer Response

by Oi Lam Siu - Saturday, 22 March 2025, 7:16 AM

Hello Panagiotis,

Your second post highlight a very important aspect concerning the need for independent auditors to review research before publication. I believe this is an excellent approach to ensuring the fairness of research outcomes. Indeed, auditing can help detect mistakes or oversights, thus safeguarding research integrity before its results are made public (PwC, 2017). This practice aligns with Section 2 of the BCS Code of Conduct, which requires IT professionals to maintain “professional competence and integrity” by avoiding careless actions that may harm individuals or result in misinformation (BCS, 2022).

Moreover, your focus on impartiality in auditing is consistent with Bos’s (2020) view that ethical research practices are vital for upholding public trust. Auditors who are financially tied to the organisations they examine face potential conflicts of interest, which can compromise both their credibility and the value of their conclusions. On the other hand, a group of genuinely independent reviewers can objectively confirm the quality of data before it is published.

Overall, your perspective underlines the shared responsibility among institutions, researchers, and auditors to sustain trust in scientific endeavours by conducting careful, ethically driven evaluations. I see this as a truly comprehensive viewpoint.

Reference

BCS (2022). BCS Code of Conduct. Available from: https://www.bcs.org/membership-and-registrations/become-a-member/bcs-code-of-conduct [Accessed 16 March 2025].

J., Bos (2020). Research ethics for students in the social sciences. Available at: https://core.ac.uk/download/pdf/344665944.pdf [Accessed 22 March 2025]

PwC (2017) Understanding a financial statement audit. Available at: https://www.pwc.com/im/en/services/Assurance/pwc-understanding-financial-statement-audit.pdf [Accessed 3 March 2025]

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