Initial Post

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Initial Post

by Michael Botha - Saturday, 15 June 2024, 6:59 AM

The importance of research ethics is well known amongst research professionals (Dawson, 2015). For instance, before a research project is undertaken ethical considerations need to be accounted for. Dawson (2015) lays a solid foundation by stating that integrity and honesty are paramount. He goes on to mention the important aspects of accurate methods, presenting all one's findings in an objective manner and the like advice.

The ACM (2018), the WHO (2011), as well as the IEEE (2020) discuss the importance for a researcher to think about the impact a study can have on society. The ACM (2018) mention the unbiased manner in which professional activities are meant to be performed. 2(b) of the BCS Code of Conduct for BCS Members notes the requirements for truthful criticism of work (BCS, 2022). A critical aspect the WHO (2011) discuss is the use of ethical committees to assess whether a study meets specific ethical criteria.

In light of the preceding points most of the answers pertaining to the questions presented can be answered. Although, this approach may be slightly naïve as shown by Bradely et al. (2020) who present various challenges facing ethical research. Essentially, the aforementioned best practices are the goal, however, some form of governance structures need to be in place to prevent untoward behaviour of those involved (Bradely et al., 2020).

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BCS. (2022) Code of Conduct for BCS Members. Available from: https://www.bcs.org/media/2211/bcs-code-of-conduct.pdf [Accessed 15 June 2024].

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WHO. (2011) Standards and Operational Guidance for Ethics Review of Health-Related Research with Human Participants. Available from:

https://iris.who.int/bitstream/handle/10665/44783/9789241502948_eng.pdf?sequence=1 [Accessed 15 June 2024].

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Peer Response

by Maria Ingold - Tuesday, 25 June 2024, 11:01 PM

Michael, thank you for your breakdown of research ethics in your initial post. While you speak abstractly about ethics, I am curious to see the application to Abi specifically. Which specific points of Dawson's is Abi in risk of breaching, and why? For instance, Dawson's (2015) section on ethics explicitly discusses honest reporting and omission of results which do not conform to the hypothesis.

I am confused by your reference of 2(b) of the British Computing Society (BCS) (N.D.). You mention it in association with criticising truthfully, yet 2(b) is about falsely claiming to have capabilities. From my reading of the BCS Code of Conduct, principles 1(a) on public health and well being, 2(f) on avoiding injury through false claims, and especially 3(e) on misrepresenting of product performance seem most appropriate.

In your final paragraph, I do not see the questions you presented that you believe can be answered. The previous paragraph contains general statements on impact, bias, truth and ethics committees, not questions. Furthermore, what do you mean by approach? Which approach?

I would also like to see an explanation as to what points were raised by Bradley et al. (N.D.) that led to your conclusion that the approach is naïve. For instance, from Bradley et al.'s (N.D.) paper, it appears that at least 'outcome switching' and 'questionable research practices' could apply to Abi's ethical dilemma.

REFERENCES

Bradley S.H., DeVito N.J., Lloyd K.E., Richards G.C., Rombey T., Wayant C. & Gill P.J. (2020) Reducing bias and improving transparency in medical research: a critical overview of the problems, progress and suggested next steps, *J R Soc Med.* 113(11): 433–443. DOI: https://doi.org/10.1177/0141076820956799.

British Computing Society (N.D.) *BCS Code of Conduct for members - Ethics for IT professionals* | *BCS*. Available from: https://www.bcs.org/membership-and-registrations/become-a-member/bcs-code-of-conduct [Accessed 3 May 2024].

Dawson, C.W. (2015) Projects in Computing and Information Systems. 3rd ed. Harlow: Pearson.





by Sahr Solar Sumana - Tuesday, 2 July 2024, 12:57 AM

Hi Michael, thank you for your initial post on research ethics.

You first outline the importance of research ethics by referring to Dawson (2015) who stated that integrity and honesty are paramount. I agree that this is a good foundation to build your research around as a researcher, how do you think that this could be applied to Abi within the case study?

Berenson et al. (2019) mentioned that keeping in line ethically when conducting research involves ensuring that the testing process is not manipulated and all pertinent results are reported, this is something Abi should definitely enforce when presenting their findings to the cereal company they are conducting research on behalf of. If Abi were to skew her findings in favour of what the cereal company desires, then her actions could be labelled as food fraud which can create unexpected food safety risks that threaten public health, and by raising public concern over confidence in food quality (Gussow and Mariët, 2022).

I think it would be a good idea to look at some cases where biased unethical research has been conducted and how it has had long term effects on society. Ingold's (2024) initial post looked into the popular case of Dr Wakefield's unethical report which led to a vast reduction of vaccination rates in the UK which reached a low on 80% in 2003 (Godlee, Smith and Marcovitch, 2011). It would be helpful to see how these after effects could somehow be applied to the case study assigned.

Reference List:

Berenson, M.L., Levine, D.M., Szabat, K.A. and Stephan, D.F. (2019). *Basic Business Statistics : Concepts and Applications*. Harlow, England Pearson.

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Gussow, K.E. and Mariët, A. (2022). The scope of food fraud revisited. *Crime, Law and Social Change*, 78(5), pp.621–642. doi:https://doi.org/10.1007/s10611-022-10055-w.

Ingold, M. (2024). *Initial Post*. [online] Collaborative Learning Discussion 2. Available at: https://www.my-course.co.uk/mod/forum/discuss.php?d=236039 [Accessed 2 Jul. 2024].

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Re: Initial Post

Hi Maria and Sahr, thank you for your comments. I will provide a consolidated response as Sahr reiterated a question asked by Maria. Firstly, although my post was general I don't believe it to have been abstract. By generalising the topic my goal was to glean aspects applicable to the broader topic, but at the same time answer the initial questions asked in the activity brief.

To clearly see the guidance from Dawson (2015) which Abi is not aligned with, we should note the following excerpt from the explanation of Abi's situation:

Unfortunately, the data Abi has collected seems to refute the claim that Whizzz is nutritious, and, in fact, they may indicate that Whizzz is harmful.

Abi also realises that some other correlations could be performed that would cast Whizzz in a more favourable light. "After all," he thinks, "I can use statistics to support either side of any issue."

What this implies is that Abi is aware that the data is indicating a specific outcome, however, wants to try and provide an analysis that is not lucid and conclusive. Therefore, I am hard-pressed to say Abi is being honest and displaying integrity (Dawson, 2015). Neither could I say that he is presenting results clearly and objectively (Dawson, 2015).

I did make an error with the BCS clause, it was meant to be 2(e) not 2(c), where my expectation is that Abi would offer honest criticism of his own work (BCS, N.D.).

The questions I refer to are those from the discussion brief. Furthermore, the approach I mentioned is that of purely applying the general principles laid out by the various parties I cited. This would lead to being naïve, because as much as society relies on professionals following best practices, official governance is still required to ensure that no one can act harmfully (Bradely et al., 2020).

References:

BCS. (2022) Code of Conduct for BCS Members. Available from: https://www.bcs.org/media/2211/bcs-code-of-conduct.pdf [Accessed 15 June 2024].

Bradley, S., DeVito, N., Lloyd, K., Richards, G., Rombey, T., Wayant, C., Gill, P. (2020) Reducing bias and improving transparency in medical research: a critical overview of the problems, progress and suggested next steps. J R Soc Med. 2020 Nov 113(11):433-443. DOI: 10.1177/0141076820956799. Dawson, C. (2015) Projects in Computing and Information Systems: A Student's Guide. Harlow: Pearson.

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Summary Post

by Michael Botha - Friday, 12 July 2024, 7:10 AM

In Summary, there are various general ethical principles and best practices that have been laid out by industry and academia pertaining to research activities. These can be applied to specific cases like that of Abi's. An important control required is the use of review committees and governance structures to ensure individual researchers cannot make decisions within silos.

With regards to Abi's scenario, he should apply standard statistical analyses without any bias, reflecting all the implications of collected data (Dawson, 2015). If he believes in his professional capacity that a particular conclusion is more reasonable than any other, that should be put forward with all applicable caveats. A study could also be deemed inconclusive and further investigation requested before a report is written with differing conclusions (Brock, 2019). Ultimately, Abi cannot prevent parties from using his report incorrectly, however, he should do what he can within his power to prevent harm to come to any other person or group (BCS, 2022). This should be one of the foundational principles that should inform his decisions.

References:

BCS. (2022) Code of Conduct for BCS Members. Available from: https://www.bcs.org/media/2211/bcs-code-of-conduct.pdf [Accessed 15 June 2024].

Brock, J. (2019) 5 tips for dealing with non-significant results. Available from: https://www.nature.com/nature-index/news/top-tips-for-dealing-with-non-significant-null-results [Accessed 12 July 2024].

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