

### **Question 1.**

a.

Word processor: Microsoft Word; Reference manager: Zotero.

b.

Yes, I will use the cite-as-you-write function in Zotero. This allows me to insert citations directly while writing and automatically generates and updates the reference list in the correct citation style, which helps ensure accuracy and saves time.

### **Question 2.**

a.

On the one hand, open access helps readers more easily find relevant literature and accelerates the dissemination of knowledge. On the other hand, for authors, open access allows their work to reach a broader audience, and increased visibility can lead to greater influence [1].

b.

There are some key differences between open access and non-open access:

Dr.Jasmin Schmit says “Articles that appear in open access journals are freely accessible to anyone with an internet connection.” However, “articles published in closed access, subscription-based journals are initially accessible only to individuals whose institutions hold the necessary licences.” [2]

Besides, open access means freely accessible to anyone online, without any payment. But non-open access: It is restricted access, which is only available to subscribers or institutions with access rights [3].

c.

Advantages: The benefits of open access encompass greater information equity and democratization, higher readership and engagement, increased author citations, and a reduced carbon footprint [4].

d.

Title: Unsupervised K-Means Clustering Algorithm [5]

Author: Yang, Miin-Shen, Sinaga, Kristina P.

Publication: IEEE Access

ISSN: 2169-3536

DOI: 10.1109/ACCESS.2020.2988796

e.

Millimeter Wave Mobile Communications for 5G Cellular: It Will Work! [6]

f.

The increasing demand for wireless data has led to a shortage of available bandwidth, prompting researchers and carriers to investigate the largely untapped millimeter-wave (mm-wave) spectrum as a candidate for next-generation broadband cellular networks. However, current understanding of how mm-wave signals propagate in crowded indoor and outdoor environments remains limited.

g.

Article version	Number of Google Scholar citations	Number of Web of Science citations	Date(s) of access
Peer review	9040	5336	05/09/2025

h.

The 8 most relevant citing papers:

*On the Road to 6G: Visions, Requirements, Key Technologies, and Testbeds* (Non-open access)

*Integrated Sensing and Communications: Toward Dual-Functional Wireless Networks for 6G and Beyond* (Hybrid)

*5G-Advanced Toward 6G: Past, Present, and Future* (Non-open access)

*Reconfigurable Intelligent Surfaces for Energy Efficiency in Wireless Communication* (Non-open access)

*Wireless Communications and Applications Above 100 GHz: Opportunities and Challenges for 6G and Beyond* (Open access)

*Channel Estimation for Extremely Large-Scale MIMO: Far-Field or Near-Field?* (Non-open access)

*Joint Radar and Communication Design: Applications, State-of-the-Art, and the Road Ahead* (Non-open access)

*6G Wireless Communications Networks: A Comprehensive Survey (Open access)*

	Open access	Non-Open Access	Hybrid	Date of access
Number of citing papers	2	5	1	05/09/2025

**Question 3.**

a.

“For example, measured physics data can be directly used as the input of a neural network to perform a pre-processing (Li et al., 2021).” the student cited Li et al., 2021 as if the ideas or wording came directly from Li et al., but in fact they were mentioned second-hand in another source.

“In addition, deep neural networks can be trained to generate images based on the measured physics data (Li et al., 2021)”. Same problem as the sentence above, non-originality, the student is supposed to cite the original paper.

b.

The student should have located and cited the original study where the ideas/data were first published, rather than relying on Li et al., or clearly acknowledged it was a secondary citation, e.g., “as cited in Li et al., 2021”.

**Question 4.**

a.

APA uses author–date citations and an alphabetical reference list, while IEEE uses numbered in-text citations and a reference list ordered by citation appearance.

For article 1, the in-text citation style using IEEE is [7]. However, the in-text citation style using APA is (Esteva et al., 2019).

b.

h-index in Google scholar: 57

h-index in Web of Science: 39

h-index in Scopus: 41

The h-index differs across databases because of variations in coverage and citation counting.

Google Scholar includes journals, conferences, books, theses, and non-peer-reviewed sources, usually giving the highest h-index. Scopus covers journals and many conferences but is less comprehensive. Web of Science is the most selective, indexing mainly high-impact journals with limited conference coverage, so it reports the lowest h-index.

c.

One suitable metric for assessing the quality or impact of a single article is the citation count. Citation count directly measures how often an article has been referenced in other scholarly works, which reflects its influence and visibility in the research community. Unlike journal-level metrics (e.g., Impact Factor), citation count provides an article-specific indicator of impact.

**Question 5.**

Author order	Name	Affiliation	Academic or professional position	Corresponding author?
Author #1	E.J. Bond	University of Wisconsin	Ph.D	Yes
Author #2	X. Li	University of Wisconsin	Ph.D	No
Author #3	S.C. Hagness	University of Wisconsin	Assistant Professor	No
Author #4	B.D. Van Veen	University of Wisconsin	Professor	No

**Question 6.**

a.

Developing a clinical microwave brain imaging system requires robust ethical safeguards, including transparent consent procedures, clear data ownership policies, strict confidentiality protections, and responsible data sharing mechanisms. These measures ensure patient trust, legal compliance, and the ethical integrity of the collaboration.

b.

No, data points should not simply be removed to improve performance for publication.

Selective exclusion of data without transparent justification constitutes data manipulation and undermines the integrity and reproducibility of the research. Instead, researchers should investigate anomalies, justify exclusions transparently, and report results honestly to uphold scientific integrity.

**Question 7.**

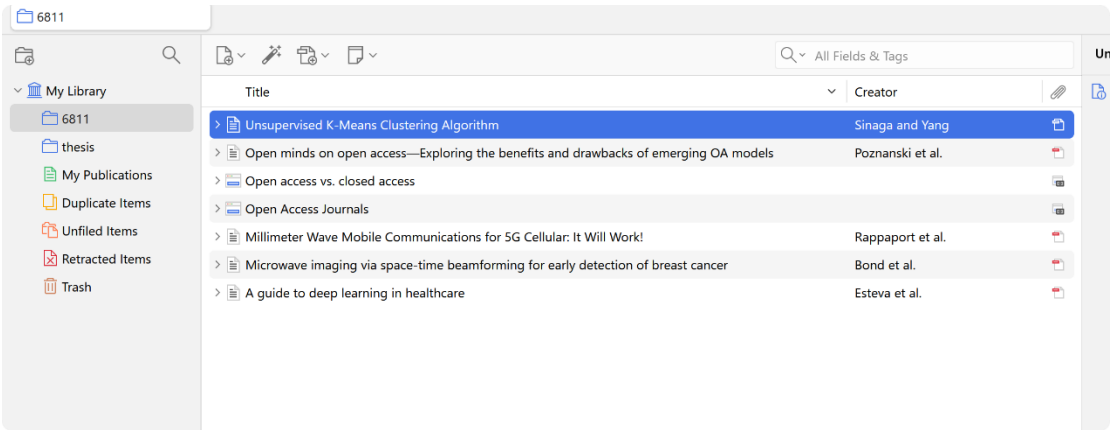
a.

Dr. X has a clear conflict of interest because of their close personal relationship with Dr. Y, which may bias or appear to bias the grant assessment. The ethical concerns include compromised objectivity, unfair advantage for Dr. Y, and damage to the integrity and credibility of the grant review process.

b.

To maintain research integrity, Dr. X should declare the conflict of interest to the panel and recuse themselves from assessing Dr. Y’s proposal. This ensures impartiality and upholds fairness, transparency, and trust in the evaluation process.

**Question 8.**



[1] “Budapest Open Access Initiative (2002),” *JLIS*, no. 2, 2012, doi: 10.4403/jlis.it-8629.

[2] “Open access vs. closed access,” ZB MED - Informationszentrum Lebenswissenschaften. Accessed: Sept. 05, 2025. [Online]. Available: <https://www.publisso.de/en/advice/publishing-advice-faqs/open-access-vs-closed-access>

[3] “Open Access Journals.” Accessed: Sept. 05, 2025. [Online]. Available: <https://open-access.network/en/information/publishing/open-access-journals>

[4] E. Poznanski, B. Ashcroft, B. Denne, R. Gallagher, and D. Snowden, “Open minds on open access—Exploring the benefits and drawbacks of emerging OA models,” *Learned Publishing*, vol. 37, no. S1, p. e1645, 2024, doi: 10.1002/leap.1645.

- [5] K. P. Sinaga and M.-S. Yang, "Unsupervised K-Means Clustering Algorithm," *IEEE Access*, vol. 8, pp. 80716–80727, 2020, doi: 10.1109/ACCESS.2020.2988796.
- [6] T. S. Rappaport *et al.*, "Millimeter Wave Mobile Communications for 5G Cellular: It Will Work!," *IEEE Access*, vol. 1, pp. 335–349, 2013, doi: 10.1109/ACCESS.2013.2260813.
- [7] A. Esteva *et al.*, "A guide to deep learning in healthcare," *Nat Med*, vol. 25, no. 1, pp. 24–29, Jan. 2019, doi: 10.1038/s41591-018-0316-z.