

## **A BAD REVIEW IS AS MUCH OF A LABOR TO WRITE AS A GOOD ONE: THE FOUR PRINCIPLES FOR REVIEWING RESEARCH MANUSCRIPTS**

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Journal of Information System Security is a publication of the Information Institute. The JISSec mission is to significantly expand the domain of information system security research to a wide and eclectic audience of academics, consultants and executives who are involved in the management of security and generally maintaining the integrity of the business operations.

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### **Abstract**

New reviewers, recent PhD graduates, and junior faculty are often asked to review papers for journals. Such individuals are particularly sought by the Journal of Information System Security. There are several reasons for doing so. To advance the field, we must mentor and nurture the new reviewers. The field of Information Systems Security is still relatively new, and it is important to establish some baselines and practices to ensure our review processes are constructive, developmental, and help authors advance the field. The purpose of this paper is to present some fundamental aspects reviewers should consider when conducting JISSec reviews. Despite being specific to JISSec, the comments are generic enough to benefit other disciplines and areas.

**Keywords:** Research manuscript, Reviewing a paper, Review process, Hear, Empathize, Analyze, Respond.

## **The HEAR principles**

There are four basic principles that need to be kept in mind when reviewing a research paper: Hear, Empathize, Analyze, and Respond. A review must be written based on the first principle, "hear," where the author must be listened to carefully before the review is written. The most important thing you can do to ensure that you understand the author's main arguments and conclusions is to read the paper carefully.

Reviewers often overlook the second principle, "empathize," but it is critical for an unbiased and fair review. Empathizing with an author means seeing things from their point of view and trying to put oneself in their shoes. Reviewing papers from different disciplines or papers that challenge one's own beliefs or assumptions can be especially challenging. To provide an objective evaluation of the paper, a reviewer must be able to recognize and set aside their own biases and preconceptions.

Having examined the manuscript with a critical eye, the third principle relates to analyzing the manuscript carefully and critically. The process of evaluating an article includes analyzing the data and the citations, as well as evaluating the strength of the author's arguments and the coherence of their ideas as part of the evaluation process. A thorough analysis of a paper requires one to pay close attention to details and to identify both the strengths of the paper as well as its weaknesses.

As a final principle, "respond" involves writing a constructive and helpful review that provides specific feedback to the author. Besides highlighting flaws and weaknesses, a good review should also provide suggestions for improvement and highlight the paper's strengths. Ultimately, a review is intended to help the author advance their work and contribute to the field.

## **Hear**

### ***The importance of an opening summary***

As a third-year doctoral student at the London School of Economics, I was approached to review a manuscript. At the conclusion of the review process, I received the feedback from the other two reviewers and the Associate Editor. I was initially surprised by the Associate Editor's review, which started with a summary of the manuscript. I was perplexed by this, as I assumed that authors would know what their manuscript was about, so why summarize it? However, upon reflection, I realized that the summary was provided to demonstrate that the editor and reviewers understood the paper's content and had grasped what the authors were trying to convey. This concept of "hearing" what the authors had written proved to be essential for effective review and feedback.

In later years, as an author myself, I found that the reviewer and author summary is a useful measure of how well I have communicated my argument and contributions. By looking at how effectively the summary captures the manuscript's essence, I can gauge the clarity and cohesiveness of my writing. The summary also serves as an excellent feedback tool to improve my writing skills and refine my ideas.

In some instances, manuscripts can be controversial, and the perspectives of reviewers and editors may differ. In such cases, a summary of the manuscript can help to align the understanding of the document and provide valuable insights into the reviewer's perspective for the author. Furthermore, an opening summary can aid editors in the decision-making process when dealing with manuscripts that evoke conflicting reactions, ensuring that everyone involved is on the same page. In other cases the editors may inherit the flawed assumptions of the reviewers. See Appendix I as an example. The write up suggests that the reviewer has a certain perspective and is biased. The Editor-in-Chief should have intervened but did not.

Taking into account the HEAR principles can help reviewers provide scholarly dialogue and contribute to the advancement of knowledge by providing thoughtful and constructive feedback.

***Clarify your position.***

One way to provide helpful feedback as a reviewer is to state explicitly the areas where you have expertise and where you lack expertise. This information can assist the editor and author in interpreting and weighing your comments. Furthermore, by indicating where their expertise may be lacking, reviewers may gain additional credibility for their claims about where they do have expertise.

For example, when reviewing a manuscript, I could read the paper from two perspectives. Firstly, I might approach it as someone who has employed the same methodology that the authors are using. Secondly, I might approach it as someone who is not familiar at all with the specific substantive area that the authors are investigating. This dual perspective allows me to offer criticisms and suggestions from the first perspective while also identifying potential gaps in the authors' explanations from the second perspective.

In some cases, authors may assume that readers are familiar with certain concepts or topics, but this may not be the case for all readers. As a reviewer, I may highlight this issue by pointing out that the authors present no helpful explanation of certain concepts or justification for their inclusion in the study in the first place. This feedback can help the authors to make their work more accessible to a wider audience.

Another challenge that I may encounter as a reviewer is a lack of familiarity with all of the research fields that the authors draw upon. For example, in one review, I found that the authors drew upon three different research fields, but I was only familiar with two of them. In such cases, I cannot judge how well the paper builds on past research in the third field. However, I can still provide feedback on other aspects of the manuscript, and I can indicate that my lack of expertise in the third field limits the scope of my review.

Overall, by identifying areas of expertise and limitations as a reviewer, I can provide more accurate and helpful feedback to editors and authors.

### **Empathize**

As a manuscript reviewer, it is important to provide constructive feedback that helps the authors improve their work. When reviewing a manuscript, it is common to encounter assumptions and frameworks that may raise concerns. However, simply disagreeing with these assumptions may not be the most effective approach.

It is important to recognize that all assumptions have some degree of flaw, as they are based on simplifications of the complex reality. Therefore, it is not enough to point out that the assumptions are flawed, as this is a given fact. Instead, the reviewer can take a different approach by accepting the assumptions made by the authors and examining the consequences that result from them. By analyzing the implications of the assumptions, the reviewer can identify any weaknesses or shortcomings in the manuscript.

It is worth noting that, if the assumptions do not lead to any problematic consequences, they may not be considered bad assumptions after all. In this case, it would be more productive for the reviewer to focus on the strengths of the manuscript and provide suggestions for improvement within the framework established by the authors.

To provide effective feedback, it is crucial to frame the review in terms of the authors' chosen framework. By acknowledging and supporting their work, the reviewer can establish a positive tone that can increase the likelihood of the authors accepting the feedback and making the suggested improvements.

In summary, as a manuscript reviewer, it is essential to provide feedback that helps the authors improve their work. Accepting the manuscript's assumptions and analyzing their consequences, rather than simply disagreeing with them, can provide more constructive feedback. Framing the review in terms of the authors' chosen framework can also help establish a positive tone that may increase the authors' receptiveness to the feedback.

A way to give feedback to authors is to start by summarizing the objectives stated in the paper's introduction and then assessing if the paper meets those goals within the framework set up by the authors. If there are shortcomings, the reviewer can suggest particular enhancements that are in line with the authors' initial approach. It is vital to recognize the potential value of the manuscript's concepts and motivate the authors to investigate them further.

If the reviewer intends to suggest an alternative framework or assumptions, it might be more convincing to do so after showing a comprehension and admiration of the authors' original method, rather than dismissing it right away.

Here are tips on how to be empathetic when writing an academic review of a paper:

1. Recognize the effort and time the authors have put into their work. Start your review by acknowledging the authors' hard work and their contribution to the field. This can help to establish a positive tone and show the authors that you appreciate their efforts.
2. Use constructive language. When providing feedback, focus on the constructive aspects of the paper. Instead of criticizing the authors' work, offer suggestions for improvement that are specific, clear, and actionable. Using positive language and offering constructive feedback can help to ensure that the authors receive your feedback well and are more likely to take it into account when revising their work.
3. Be respectful and courteous. Remember that the authors are likely to be passionate about their work, and that receiving critical feedback can be challenging for them. Be respectful and courteous when writing your review and avoid using derogatory language or overly negative criticism. Even if you strongly disagree with the authors' findings or conclusions, it is important to be respectful and professional in your review.
4. Consider the authors' perspective. When writing your review, try to put yourself in the authors' shoes. Consider the context in which the work was done, and the challenges that the authors may have faced. Taking the authors' perspective into account can help you to provide feedback that is more empathetic and understanding.
5. Offer support and encouragement. Finally, remember that your review can have a significant impact on the authors' work and their confidence in the field. Offer support and encouragement where possible, and let the authors know that you are willing to help them improve their work. This can help to establish a positive relationship between the reviewer and the authors and can ultimately lead to better quality research.

## Analyze

When reviewing a paper, put yourself in the author's shoes and consider what they would expect to see. As an author, an honest opinion is essential. It is incredibly valuable to receive an unbiased perspective that acknowledges the paper's strengths and how it can contribute to the body of knowledge. If there are no areas in the paper that will enhance the body of knowledge, be candid, but still tactful. Indicate the way forward for the author, even if the paper is ultimately rejected.

As a reviewer of an academic paper, there are several ways to identify the strengths of a manuscript. Here are some suggestions:

1. Identify the main contribution of the paper: What is the novel aspect of the manuscript? What is the problem that the paper aims to solve? What are the main findings? These are all essential elements that contribute to the strength of a manuscript.
2. Evaluate the methodology: Is the methodology used in the paper sound? Does it provide a new perspective or approach? Are the research questions or hypotheses clearly stated? Does the methodology suit the research questions or hypotheses?
3. Assess the quality of the data: Is the data used in the paper of high quality? Is the data appropriate to answer the research questions or hypotheses? Are the data analyzed appropriately, and are the results valid and reliable?
4. Look for originality: Does the paper provide a unique perspective on the topic? Does it offer a fresh approach or novel findings that add to the body of knowledge?
5. Consider the organization and clarity of the paper: Is the manuscript well-organized, with clear and concise writing? Does it flow well and have a logical structure? Are the ideas presented in a clear and understandable manner?
6. Take note of any potential applications or implications of the findings: Are there practical applications or implications of the findings that could benefit the scientific community, industry, or society?

By considering these factors, a reviewer can identify the strengths of a manuscript and provide constructive feedback to help the author improve the paper further.

### ***Specificity***

In order to identify the specific areas of a manuscript that need attention, it is crucial to provide quotes, page numbers, or clear references to the relevant sections. This will allow you to effectively communicate which parts you find confusing, which areas you disagree with, or precisely what needs to be improved. Furthermore, by providing explicit references, the author can directly respond to your critique if they disagree with your assessment.

Some examples might include:

- Using the third paragraph on page 11 as an example, I find the authors' understanding of construct validity to be unclear.
- I would appreciate more details about the studies included in the 15 percent mentioned on page 3 in the literature review section, where it states that "...only 15 percent of the XYZ examined the ....." While I do not doubt the statement, I would like to be able to validate it myself.
- On page 6, I would like further explanation as to why prior research suggests that this topic must be studied, as you have claimed.

### ***Sharing your interpretations***

When conducting a review of an academic paper, it is important to not only rely on the information presented by the author but to also conduct your own research. This allows you to gain a deeper understanding of the topic and identify any potential gaps in the author's argument or analysis.

If the author references a particular body of work in their paper, it is crucial to revisit the sources and evaluate their relevance and accuracy. This can help you provide a more nuanced analysis of the author's argument and highlight any areas of agreement or disagreement between the original work and the author's interpretation.

Furthermore, if you find that your understanding of the original work differs from that of the author, it is essential to provide your own interpretation and explain how it informs your evaluation of the paper. This can help the author and other readers gain a broader perspective on the topic and identify areas for further research or analysis.

Overall, conducting your own research and providing your own interpretation of the original sources can enhance the quality and rigor of your review and contribute to the advancement of knowledge in the field.

## **Respond**

A reviewer report for an academic article typically consists of the following sections:

**Introduction:** This section should provide a brief overview of the article and its main purpose.

**Summary of the article:** This section should summarize the main arguments, findings, and conclusions of the article. It should be a concise and objective summary of the article's content. This takes care of the "hear" principle.

**Strengths and weaknesses:** This section should identify the strengths and weaknesses of the article. It should evaluate the quality of the research, the clarity of the writing, and the soundness of the argument. This takes care of the "empathize" principle.

**Suggestions for improvement:** This section should provide constructive feedback to the author on how to improve the article. This may include suggestions for additional research, improvements in the clarity or organization of the writing, or suggestions for addressing any weaknesses identified in the article. This takes care of the "analyze" principle.

**Conclusion:** This section should summarize the key points of the reviewer's report and provide an overall evaluation of the article. The conclusion should be objective, balanced, and based on the evidence presented in the review.

It is important to note that the structure of a reviewer report may vary depending on the guidelines provided by the journal or publication. Reviewers should always follow the guidelines provided by the editor or journal when writing their report.

## **Conclusions**

In conclusion, the benefits of reviewing a manuscript for publication extend beyond just the act of providing feedback. Reviewers gain important insights into the publishing process, access to valuable resources, and opportunities to enhance their own career reputation. Additionally, reviewing manuscripts is a way to give back to the community and support one's own school of thought. By providing constructive feedback, reviewers can play a critical role in helping authors improve their work and helping editors make informed decisions. Therefore, participating in the reviewing process is not only a professional responsibility but also a rewarding experience for all parties involved.

## Appendix I

Example of a bad and an unprofessional review.

I write to you regarding manuscript # XXXXXX entitled "XXXXXXXXXX" which you submitted to ABC Journal.

In view of the comments of the reviewer(s) found at the bottom of this letter, we have unfortunately made the decision not to publish your manuscript in ABC.

Thank you for considering ABC for the publication of your research. I hope the outcome of this specific submission will not discourage you from the submission of future manuscripts.

Sincerely,

YYY

Editor in Chief, ABC Journal

Editor Comments to Author:

Senior Editor: 1

Comments to the Author:

Thank you for submitting your paper to be considered for publication in this special issue. Unfortunately, for the reasons given in the AE report, this manuscript will not be considered further for the special issue.

Associate Editor: 2

Comments to the Author:

The paper being evaluated is related to the call and focuses on xyz. However, there are several problematic aspects that could hinder its progress through the review process. Consequently, we recommend that it be rejected at this stage. One issue is the paper's definition of abc, which assumes three categories: a, b, and c. This approach is fundamentally flawed since I do not believe there is such a categorization. While the authors make note of some citations, I do not agree with them. The paper's categorization of xyz raises concerns about its validity. As a result, the study's findings based on such a flawed xyz are questionable. Additionally, the paper implies that the results of the study can be generalized across abc, suggesting that all use the work tactics assigned to them in the study. Such broad generalizations and rigid categorizations of social groups are often unreliable and indicate flaws in the research design. Therefore, we lack confidence in the research design and recommend that the paper be withdrawn from consideration.

**Professor Gurpreet Dhillon** holds the G. Brint Ryan Endowed Chair of Artificial Intelligence and Cybersecurity at the University of North Texas, USA. He also holds honorary appointments at the University of KwaZulu-Natal, South Africa and Universidade de Lisboa (University of Lisbon), Portugal. Gurpreet earned a Ph.D. from the London School of Economics. He received an Honorary Doctorate from Örebro University, Sweden, in 2019. Several of his research papers have been published in FT50 journals. Additionally, he has been featured in the Wall Street Journal, the New York Times, USA Today, Business Week, CNN, NBC News, and NPR.

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