



More on Comments for Research at the Interface of Computer Science and Economics

Part I Summary

Please draft a summary, including the following 6 parts.

Hints:

1. Please address the answers by referencing the paper that you are reviewing instead of inventing answers.
2. Please summarize the content in your own words and avoid high duplications with the reviewing article
 - a). If there is any jargon in the paper, search for more background information and define the jargon for the general audience in your review.
 - b). If you cite papers that are already cited in the paper, you must introduce the papers in a more organized or insightful way.
3. Be coherent in logic other than be comprehensive in content
 - a). All the 6 parts shall be coherent in logic and centered on the research question.
 - b). You must review the primary research question but it is unnecessary to include all research questions in your report.
 - c). It is unnecessary to include all the contents of background and motivation, methods, results, intellectual merits, and practical impacts. However, you must include enough information to address the primary research question.
 - d). If you mention more than one research question, then you must explicitly point out which research question that other parts connect to.
4. Suggested Length: less than 1 page.
5. The answer should be concise and right to the point.
 - a). Avoid missing points.
 - b). Avoid including irrelevant content.

Help document:

Berk, Jonathan B., Campbell R. Harvey, and David Hirshleifer. 2017. "How to Write an Effective Referee Report and Improve the Scientific Review Process." *The Journal of Economic Perspectives* 31 (1) (Winter): 231-244. doi:<http://dx.doi.org/10.1257/jep.31.1.231>. ([Downloaded PDF](#))

1. Background and Motivation:

1. What is the literature that the paper is based on?
2. What are the real-world issues that motivated the research in the paper?
3. What are the application scenarios of the research in the paper?

2. Research Questions:

1. What are the questions that the paper answered? (Hint: How do exogenous variables affect endogenous variables)
2. Why are those questions important?
3. Why are the questions not answered by existing literature?

3. Methods:

1. What is the research methodology of the paper?
Hint: Model and Simulation? Data Analysis? Experiments?
2. How is the research conducted with the method?

Hint:

Type 1: Model and Simulation

1. Assumptions: technique assumptions and behavioral assumptions together with rationales
2. Model: exogenous variables, endogenous variables, comparative statics
3. Simulation: software packages and technique tools

Type 2: Data Analysis

1. Data source, variables, and descriptive statistics
2. Econometric or/and machine learning algorithms
3. The rationale and validity for selecting those algorithms

Type 3: Experiments

1. Experiment design: treatments, sessions, and subjects
2. Hypothesis Testing: data to collect and hypothesis to be tested
3. Statistic Tests and Packages: the statistical tests for each hypothesis testing, the rationale, and the python package to use.

● Results:

Hint:

Type 1: Model and Simulation

1. Lemma, proposition, and theorem that answer the research questions in general
2. Simulation that provides case studies for the research questions
3. Limitations for the model or impossibility theorem

Type 2: Data Analysis

1. Correlation
2. Prediction
3. Causal inferences

Type 3: Experiments

1. Software for pilot experiments (e.g., zTree, oTree, etc...)
2. Subject statistics (e.g., academic or professional background, age, gender, etc...)
3. Hypothesis testing

4. Intellectual Merits: What are the contributions that this paper has to other literature?

Please elaborate on

- How is this paper built upon existing literature/research?
- How does this paper contribute to existing literature with new insights?
- How do the pioneering work and the current limitations of the paper inspire following-up research?
- Hint: research questions, research methodologies, application scenarios, etc?

5. Practical Impacts: What are the practical impacts of the paper? Please elaborate on

- How does this paper contribute to solving real-world issues?
- What are the application scenarios of the research results?

Part II Critics

1. Economics for Computer Science: Incentives in Computer Science

Hint:

Think from the perspective of Economics: How does the article model incentives in the mechanism design? Any strength to learn from? Any limitations for further improvement?

2. Computer Science for Economics: Practicality in Economics

Hint:

Think from the perspective of Computer Sciences: How does the article address the practicality in the mechanism design? Any strength to learn from? Any limitations for further improvement?

Part III Inspirations

1. Interdisciplinary Research

Hint:

what's your takeaway from this class on the merits and the future of interdisciplinary research?

2. Research for Real-world Practices

Hint:

what's your takeaway from this class on conducting research that can have general practical impacts on and solves real-world problems?

3. Future Professional Growth

Hint:

what's your takeaway from this class for future professional growth?