

"In this [talk, I will present and discuss a paper by AJ Smith, "The Task of the Referee" on] the problem of how to evaluate a (research) paper for publication, **and by inference, how to write one**. The primary question which is addressed is that of determining whether the paper should be published, and if so, what changes and improvements are needed. The role of the editor, and rules and procedures used by most computer science journals are discussed. Brief discussions of refereeing proposals and survey and tutorial papers [may be given as time permits]."

- AJ Smith "The Task of the Referee"

# The Task of the Referee

Alan Jay Smith  
Computer Science Division  
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Evans and/or Google

‘The time has come,’  
the Walrus said,  
‘To talk of many things:  
Of shoes - and ships - and sealing wax -  
Of cabbages - and kings -  
And why the sea is boiling hot -  
And whether pigs have wings’

# What is a Publishable Paper?

- ***Sufficient*** Contribution

- New
- Interesting
- Synthesis
- Tutorial
- Survey
- “small results which are surprising and might spark new research should be published; papers which are mostly repetitions of other papers should not; papers which have good ideas badly expressed should not be published but the authors should be encouraged to rewrite them in a better, more comprehensible fashion.”

# The Task of the Referee

- Recommendation
  - Publish!!
  - ...
  - Perish!!
- List of Changes
  - Necessary
  - Recommended
- Avoid Extremes

# It Depends On...

- Journal
  - Multiple Rounds
- Conference
  - One Shot

# Abstract [not AJS]

Reporting Experiments in Software Engineering  
Jedlitschka, et al.

- Structured Abstract
  - Background: Why is this idea important?
  - Aim: What is the question addressed?
  - Method: What [statistical] context and methods?
  - Result[s]: What are the main findings?
  - Limitations: What are the weaknesses / limits?
  - Conclusion: ...
  - [Application...] to the problem at hand.

# Abstract [not AJS]

Experimentation in Software Engineering. Basili, et al.

- Experimental
  - Motivation: Understand. Assess. Learn. Improve.
  - Object: Product. Process. Model. Metric. Theory
  - Aim [Purpose] Characterise. Evaluate. Predict...
  - Perspective: Developer. Maintainer. Tester. Customer. User.
  - Domain: Who? What?
  - Scope: Kind of study.



# Issues I

- Right Venue?
- What is the Purpose of the Paper?
  - What is the problem being considered?
  - Is it clearly stated?
  - Early description of accomplishments?
    - For example: Implemented or Design

# Issues II.A

- Is the goal of this paper significant?
- Does community care?
  - Major / Minor / Trivial / Not applicable
  - New / Rebuild
  - Solved / Variation

# Issues II.C

- Awareness of previous work
- Cited?
- Specific Distinctions
- New Ideas

# Issues II.B

- Is the method of approach valid?
  - Easily found?
  - Appropriate?
- Sufficient to purpose?
  - Real / Simulated / BoE

# Issues II.D

- Is the actual execution of the research correct?
  - Are the mathematics correct?
  - Are the proofs convincing?
  - Are the statistics correct?
  - Are simulation results are valid?
  - Confidence intervals for the results given?
  - Have boundary conditions been checked?
  - Plausible, or even possible?
  - Did the author support claims?

# Issues II.E

- Are the correct conclusions being drawn from the results?
  - What conclusions being drawn from the results?
  - Applications or implications
  - Adequate discussion of why **these** results were obtained?

# Issues III

- Presentation
  - Writing / Grammar / Verbose / Terse / Style / Typos
  - Abstract [as above]
  - Introduction
  - Figures
  - Self contained / Split / Long / Short
- WHAT DID YOU LEARN?

# Recommendation

- Major results - 1%
- Good, solid, interesting work - < 10%
- Minor, but positive, contribution to knowledge. 10% - 30%
- Elegant and technically correct but useless. [see flying pigs].
- Neither elegant nor useful, but not actually wrong.
- Wrong and misleading.
- So badly written that a technical evaluation is impossible.



# IV & C.

- Reporting
  - Anonymous
  - Professional and Timely
- Qualifications
- Col
- Confidentiality
- Reputation of Author
- Simultaneous Submission / Plagiarism / Retries
- Extension of Conference Paper

# Refereeing == Grading

- Create a Usable Report
  - Careful
  - Check
  - Evaluate
  - No Presumption of Quality
- Do not waste time!

“Keep in mind that a good referee report is immensely valuable, *even if it tears your paper apart*. **Consider - each report was prepared without charge by someone whose time you could not buy.** All the errors they find, all the mistaken interpretations they make are things that you can correct before publication. Appreciate referee reports, and make use of them. Some authors feel insulted, and ignore referee reports; that is a waste of an invaluable resource.”