COS700 RM – Research Methods

Lecture 7

Writing a review

Assessment

First Semester

Deliverable	% of Mark	Submission Deadline
Assignment 1: Research methods	20	31 May 2019
Assignment 2: Peer review	20	Maybe 21 June 2019
Research Proposal	60	5 May 2019
	100	

30% of final mark

Second Semester

Deliverable	% of Mark	Submission Deadline
Project report	100	29 October 2019

70% of final mark

Peer Review in Academia

- Peer review: when experts in similar fields evaluate each other's work
- Goal of peer review: Ensure a *good standard* and *improve quality* of published research through *constructive* criticism
- Peer review lies at the core of academic work

Peer Review in Academia

- Almost always voluntary
- Core part of the job of an academic (~3 reviews per submission)
- What is peer reviewed:
  - Journal articles, conference papers, grant proposals, promotion applications, researcher ratings, academic modules

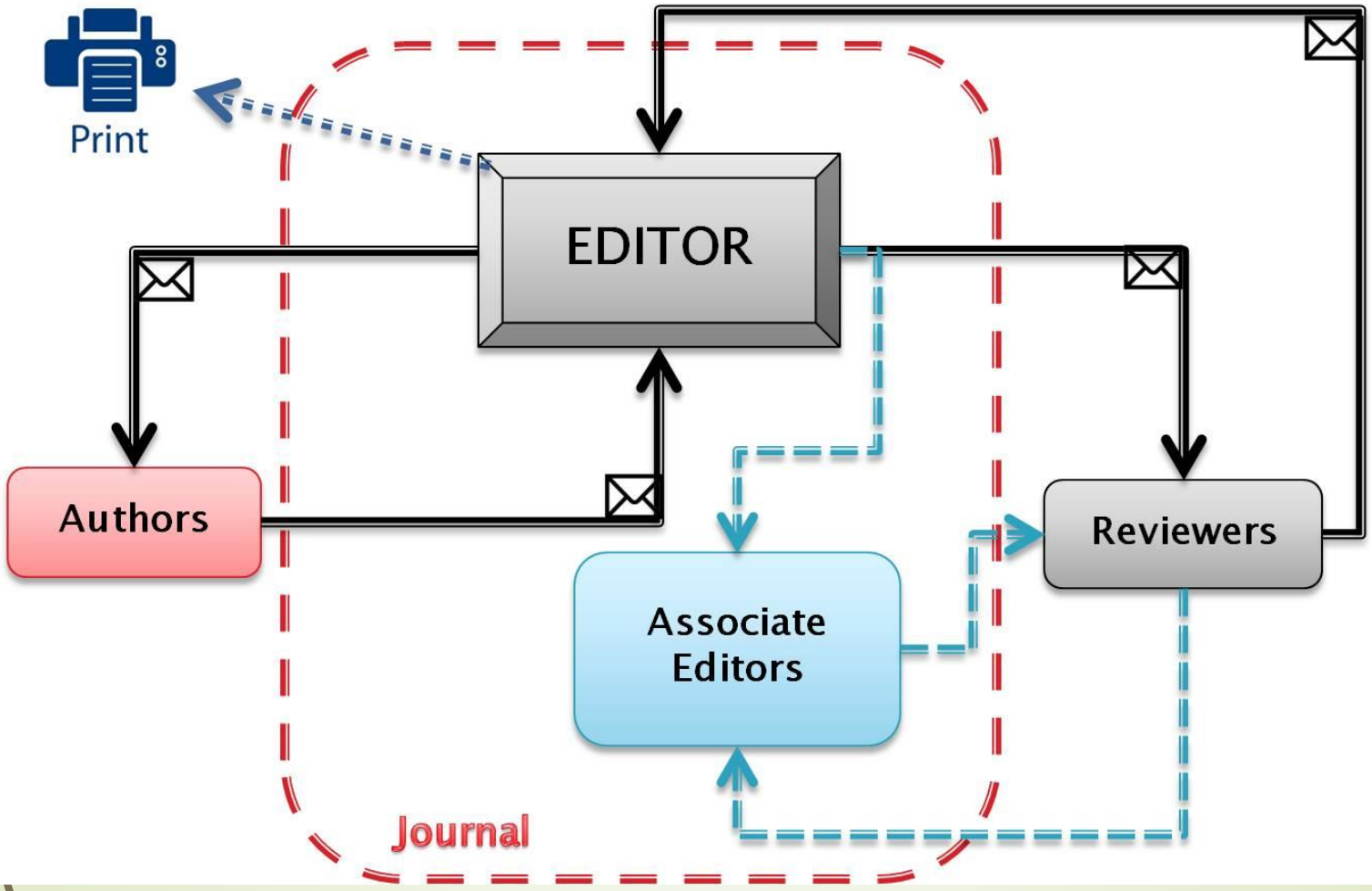
Purpose of Peer Review in Academia

- To make a decision of whether research can be published or not
- Written justification for committee's decisions
- Provides feedback to the authors (useful even if rejected) – helps authors improve their work
- Actually writing a review forces the reviewer to really think about the research
- Useful way for researchers to keep up with the latest research

Debate Around Blind Peer Review

- Types of review:
  - Editorial review
  - Single blind review (reviewers know the authors)
  - Double blind review (reviewers and authors hidden from each other)
  - Open peer review

Editorial process – double-blind peer review



Peer Review is not Perfect

- There is a certain amount of randomness
- It does sometimes fail

"The mistake, of course, is to have thought that peer review was any more than just a crude means of discovering the acceptability—not the validity—of a new finding. Editors and scientists alike insist on the pivotal importance of peer review. We portray peer review to the public as a quasi-sacred process that helps to make science our most objective truth teller. But we know that the system of peer review is biased, unjust, unaccountable, incomplete, easily fixed, often insulting, usually ignorant, occasionally foolish, and frequently wrong."

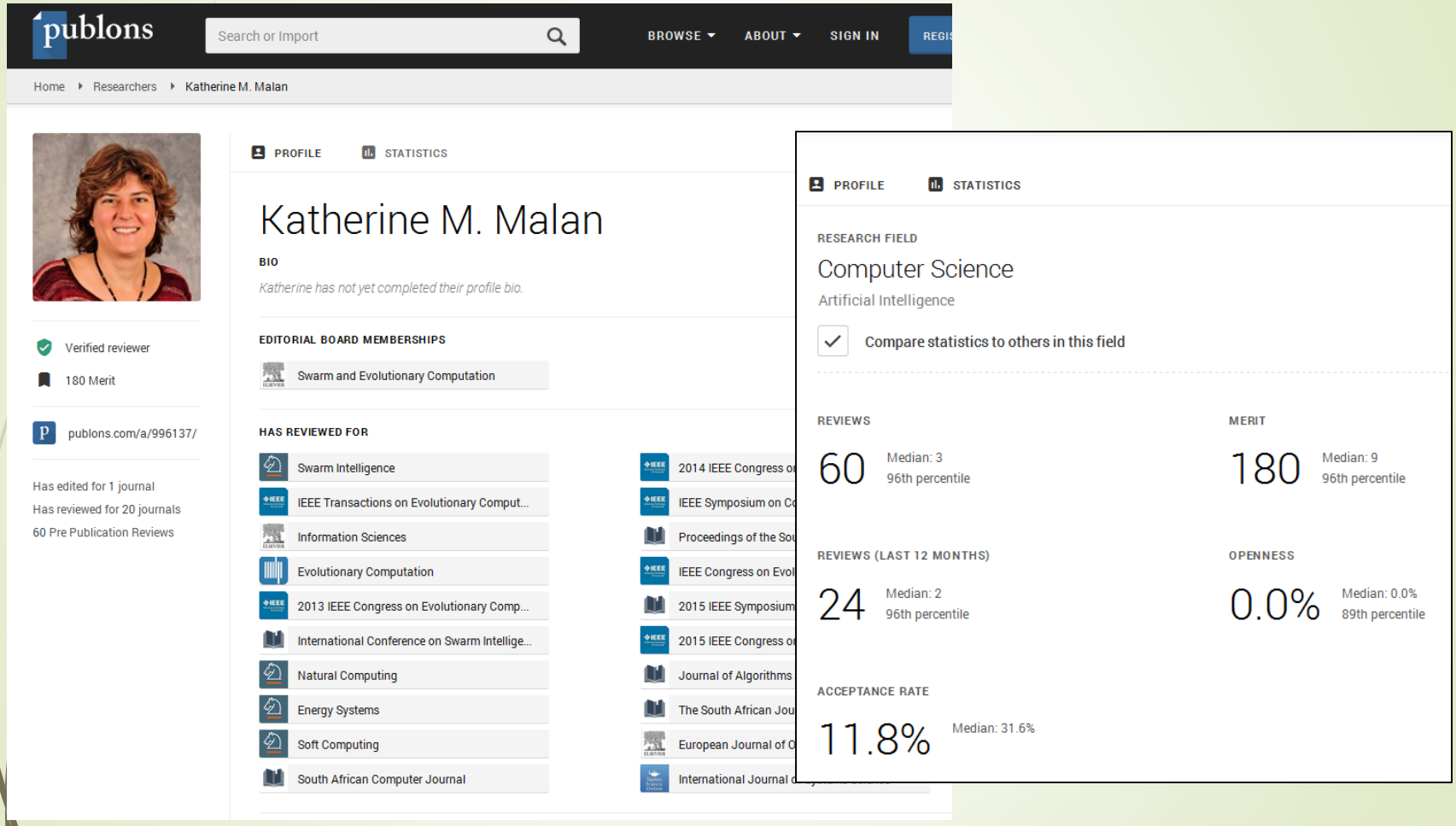
- Richard Horton, editor of the British medical journal, The Lancet

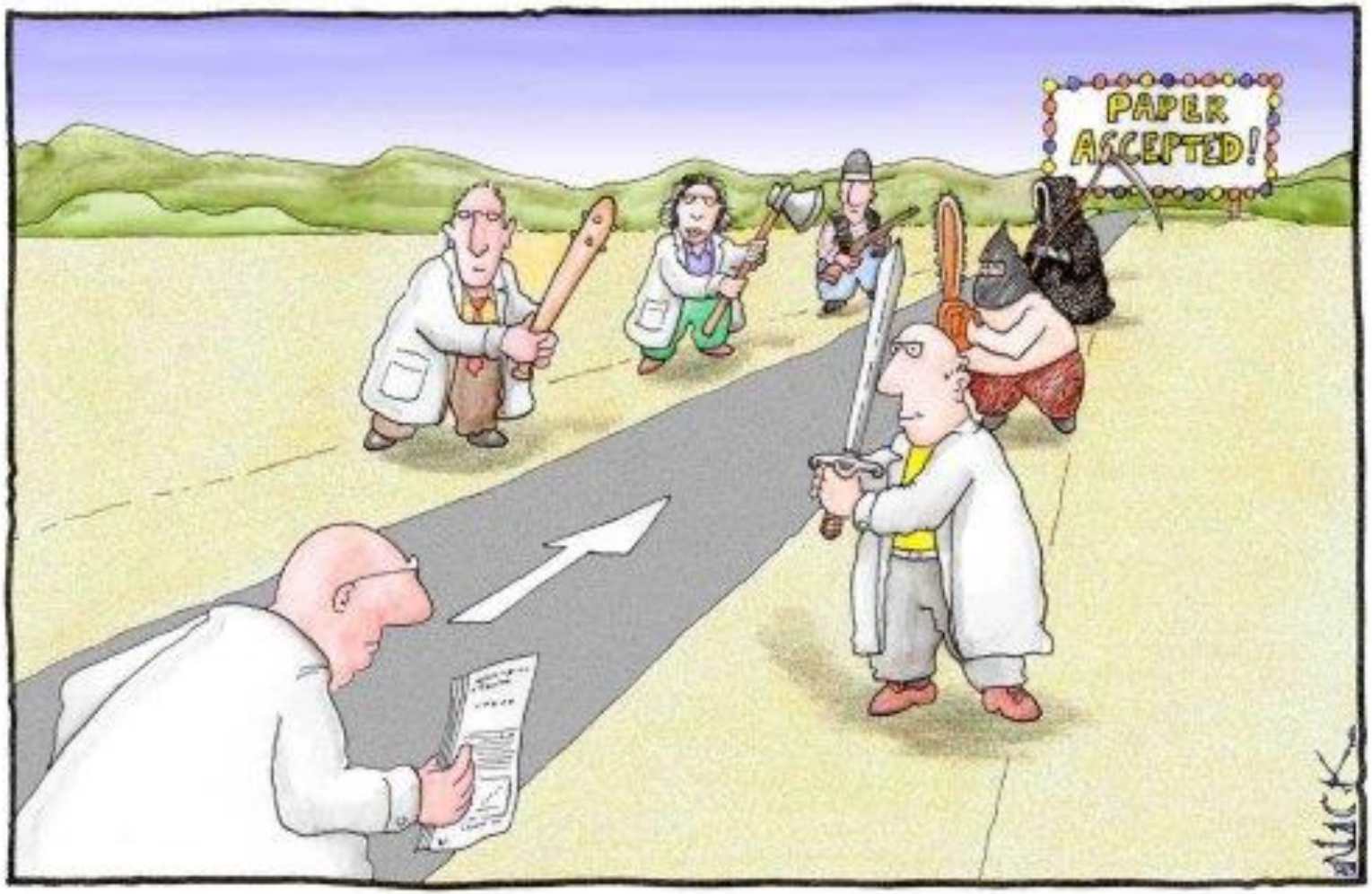
- … but it is the best system for quality control that we have

What Makes Peer Review Hard?

- Often the research will be outside the reviewer's area of expertise
- It can be intimidating – what if I don't understand it enough to review it properly / fairly?
- Bad reviews:
  - Recommend that something should be published that is flawed
  - Wrongly criticize good research
- Good reviews take time, bad reviews are careless

Peer Review Recognition



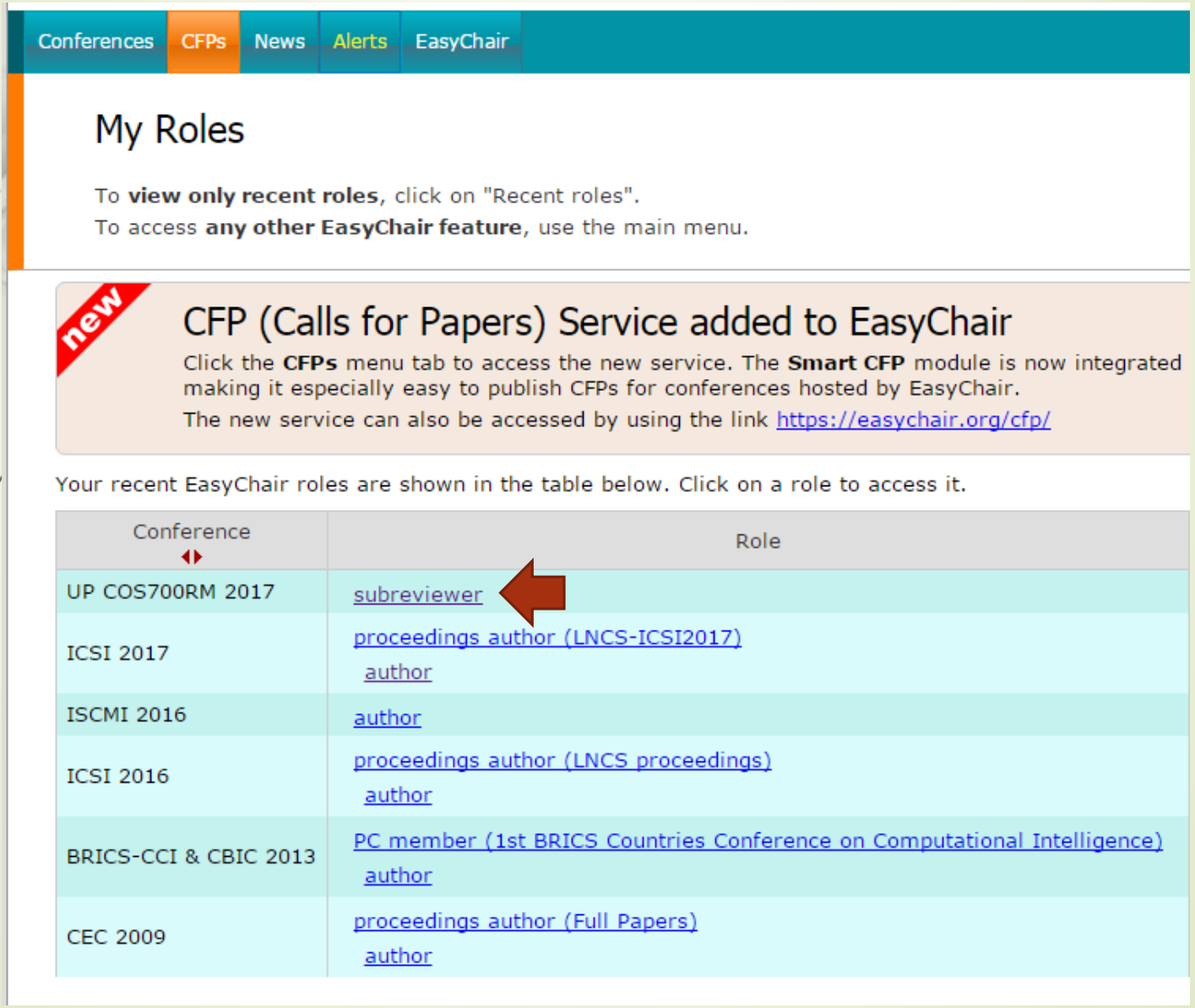


Most scientists regarded the new streamlined peer-review process as 'quite an improvement.'

COS700 Review on EasyChair

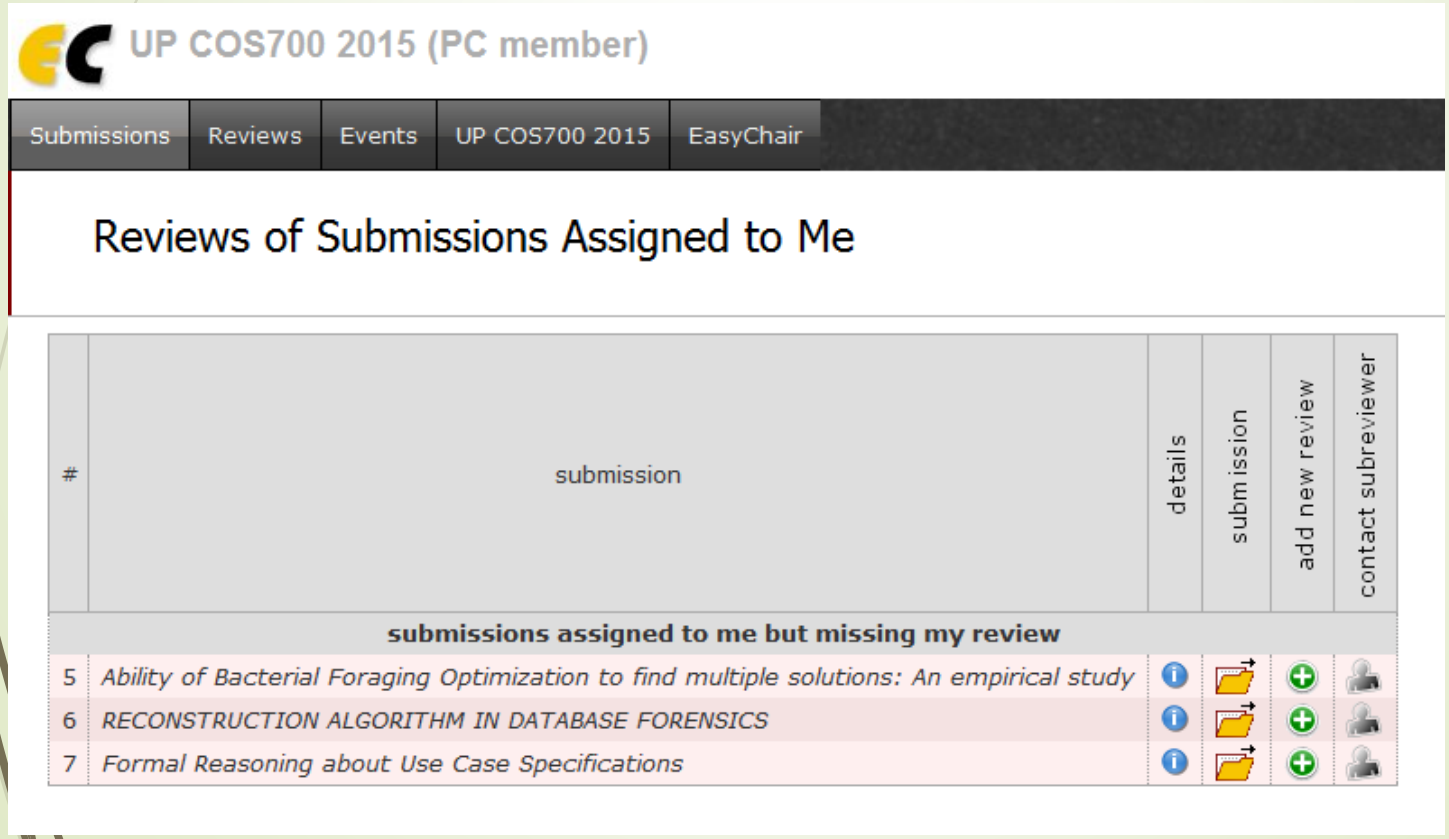
- You will all be assigned to be sub-reviewers for the *UP COS700RM 2019* "conference"
- Three COS700 project proposals will be allocated to you to review
- Reviews are due on **21 June 2019 (?)**
- You have two roles on the EasyChair system:
  - Author
  - Sub-reviewer

COS700 Review on EasyChair



Submissions to Review

- In the role as subreviewer, go to *Reviews* | *My Papers*:



Accessing the Proposals

- Download the proposals assigned to you
  - Start as soon as possible
  - It's no fun writing a review under pressure
  - Give it time to "sink in"
- Should you print them out?
  - Where do you want to read them?
  - Paper version is useful for scribbled comments
  - Can jot down things to check later (e.g. references or terms you don't understand)

Reading the Proposals

- First skim the whole proposal quickly to get a general sense of what it is about
- What do you do if you don't understand it?
  - Read up on background concepts
  - Read it again
  - Must try to figure it out, otherwise you won't be able to write a good review
- Take rough notes of main points, what you are thinking, open questions, issues, etc.
- Then read through more carefully and make more detailed notes
- Note: you may want to do this in multiple sittings, so start early

Writing the Review

- Once you understand the proposal, you can start writing the review
- Write the review in a text file first
- Start with a summary in your own words (just a few sentences)
  - Briefly, what is the researcher proposing to do?
  - Is the research topic interesting, why?
  - What is your overall impression of the project proposal?
  - Do you think it is manageable for an Honours project?

Writing the Review

- You are writing the summary so that:
  - somebody who hasn't read the article (e.g. the journal editor) can understand what it is about
  - to assure the author that you understood their paper
- Then you can go into the detailed feedback

The Details & Mark Allocation

Comment on each of the following aspects and give a mark (look at the marking guide for description of the ideal):

- Abstract: /10
- Keywords: /5
- Introduction: /20
- Problem statement: /10
- Literature survey: /20
- Methodology: /10
- Planning: /10
- References: /5
- Overall writing and presentation: /10

- Total: /100

For each aspect, think:
- Do they deserve to pass?
- Do they deserve a distinction?

Quality of Reviews

- Is the review clear and understandable?
  - For a review to be useful to the authors, they need to understand why a reviewer decided on the particular outcome / mark
- Is the review fair?
  - Just because you do/don't like a particular topic or approach to research, that should not bias your review
  - Are the marks allocated in line with the textual comments?
- Is the review useful to the author?

Quality of Reviews

- A good review does not equate to favourable or negative:
  - Good reviews can be positive or negative
  - Bad reviews can be positive or negative
  - Example bad reviews: “Proposal looks good to me. 100%” or “Proposal is very poor. 30%”

The Tone of the Review

- Be professional
  - Use humour sparingly
  - Avoid being rude
- Be constructive
  - It is far easier to poke holes into something than to make suggestions on how to fix it
  - Convert negative comments into constructive suggestions
  - Avoid terse statements or superficial comments

The Tone of the Review (cont)

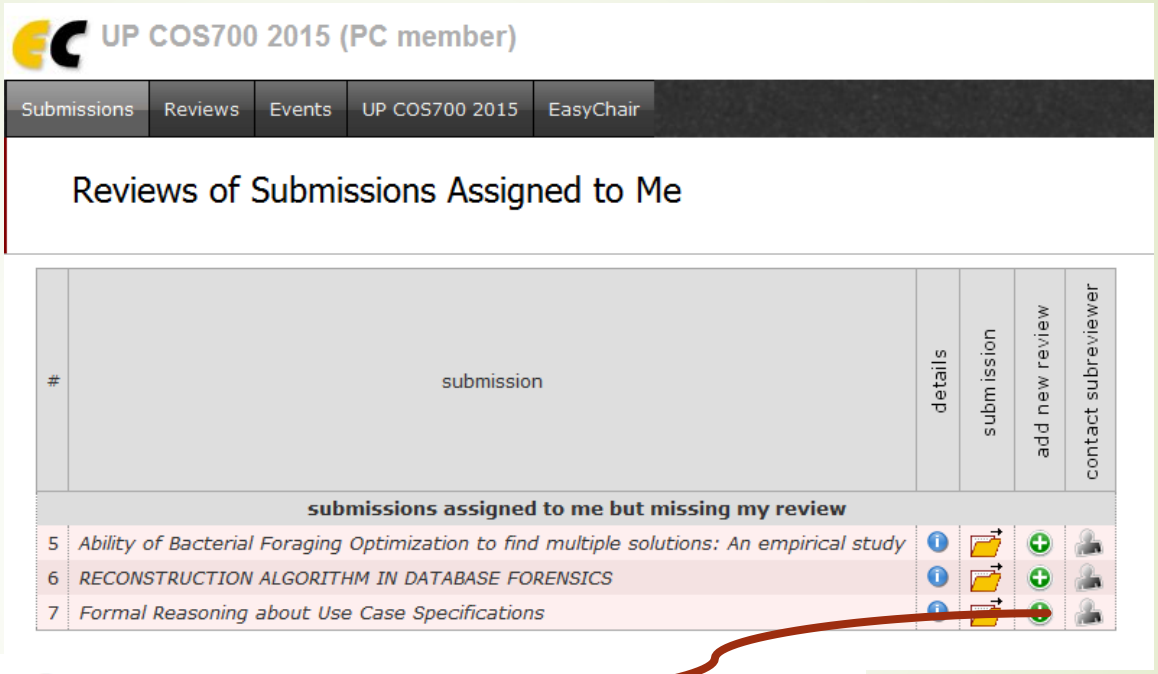
- Be scientific
  - Don't only comment on the language
  - Act as the scientific peer
  - Do not rant about small issues: make it clear when issues are minor

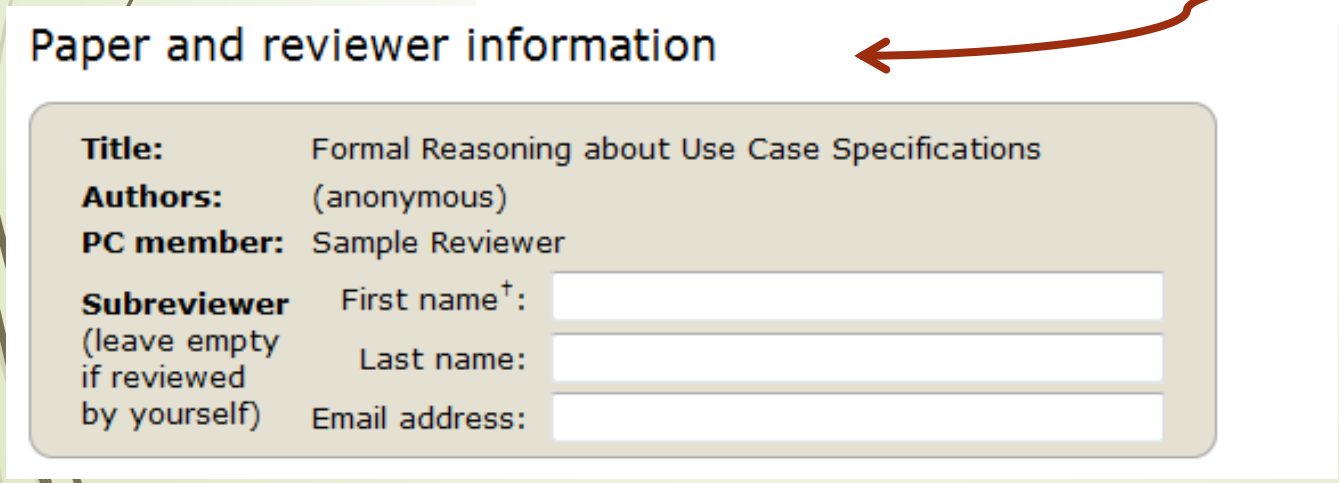
Who will Read your Review

- You (don't neglect to read your own review)
  - Review your review (preferably not directly after writing it)
- Me (to assess your review)
- The author (although they won't know who you are)

Adding a New Review to the System

- In the role *subreviewer*, go to **Reviews | My papers**
- Click on the **add new review** icon





The Actual Review

Paper and reviewer information

Title: Developing a machine learning, market competitive alternative to quadcopter stabilization systems.

PC member: Marde Helbig

Evaluation

Abstract. Use the rubric below to guide your scoring of the abstract

- 5: Contains contribution, context of the research and the approach that will be followed, well summarized
- 4: Contains contribution, context of the research and the approach that will be followed
- 3: Contains contribution and context of the research
- 2: Contains contribution or context of the research
- 1: Almost no information

Keywords. Use the rubric below to guide your marking of the keywords

- 5: Good choice of the most important keywords
- 4: Some important keywords provided
- 3: Keywords provided but not very important keywords
- 2: Keywords provided that does not really make sense
- 0: No keywords provided

Submit the Review

- Submit the review (only when you are sure that you are happy with it)

- You will receive a confirmation email from "UP COS700 2019" with the text of the review in the email
- The chair (me) will then consolidate the reviews and make a decision on each proposal
- Authors will then be able to see the reviews
- Reviewers will be able to see the other reviews

Coping with the Feedback

References

- Mark Allman, “Thoughts on Reviewing”, ACM SIGCOMM Computer Communication Review, Vol 38, Number 2, April 2008.
- Timothy Roscoe, “Writing reviews for systems conferences”, March 2007, https://people.inf.ethz.ch/troscoe/pubs/review-writing.pdf