

How to: Peer Review for CHI (and Beyond)

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ABSTRACT

A key challenge for new reviewers is getting the tone and structure of a review right. A skilful reviewer will provide enough information in their review to help editors or Associate Chairs decide about including a paper in a journal or proceedings. This course will help participants understand a) the expectations of different submission types, b) how different venues make decisions, and c) identifying strong contributions, robust methodologies, and clear writing to create reviews for these different settings. Participants will critique anonymised but real reviews, and try to guess the venue they are written for and the recommendation they make.

CCS CONCEPTS

• **Human-centered computing** → **Human computer interaction (HCI)**.

KEYWORDS

Peer Review, Reviewing, Reviewer, Writing, Research Methods, Style, Clarity

ACM Reference Format:

Max L. Wilson and Lennart E. Nacke. 2022. How to: Peer Review for CHI (and Beyond). In *CHI Conference on Human Factors in Computing Systems Extended Abstracts (CHI '22 Extended Abstracts)*, April 29-May 5, 2022, New Orleans, LA, USA. ACM, New York, NY, USA, 4 pages. <https://doi.org/10.1145/3491101.3503764>

1 INTRODUCTION

A key challenge for new reviewers is comprehending the expectations that different venues (journals versus conferences versus workshops) may have, for different types of submissions (full papers versus demos versus late breaking work), and the subsequent decisions processes for each. Consequently, it is not uncommon for new reviewers to be unnecessarily harsh or overly lenient on issues for a particular venue and type, and to put too much or too little time into reviews. This problem is exacerbated in highly interdisciplinary research fields like HCI, where even established reviewers need to be aware of expectations for different types of work [8].

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CHI '22 Extended Abstracts, April 29-May 5, 2022, New Orleans, LA, USA

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ACM ISBN 978-1-4503-9156-6/22/04.

<https://doi.org/10.1145/3491101.3503764>

At the same time, we are becoming increasingly dependent on expanding the reviewer pool, making tweaks annually to CHI's reviewing process to reduce demand in the face of annual growth in submission numbers [3]. Meanwhile, people in our field raise concerns in community forums¹ about the experience levels of reviewers looking at many CHI papers, whilst others recommend more stringent forms of review to increase rigour in our field [6]. This growth and its demand on increasingly novice reviewers is a concern that many fields experience and try to confront [1, 10].

Encouraging people to review is also a challenge, as we feel busy with many demands, with this feeling only being exacerbated by the COVID-19 pandemic. With many experts being needed further up the reviewer framework (as e.g. senior reviews (ACs) or subcommittee chairs (SCs), we become dependent on new novice reviewers perhaps reviewing for the first time. Many students learn by being coached by their supervisors, perhaps by the supervisor giving students papers to draft-review before completing the review themselves. Many reviewers, however, do not have this opportunity.

1.1 Learning Outcomes

This course² is designed to help people to:

- (1) Understand the different types of contributions submitted to different venues.
- (2) Understand the different processes used by different venues (for different types of submissions)
- (3) Reflect on what senior reviewers want from a review (and therefore how they might be structured)
- (4) Critique example reviews for different types of submissions for different types of venues

1.2 Audience and Prerequisites

This course is aimed at new PhD students, or other students intending to pursue a research programme, or indeed anyone that feels that they are 'new' to reviewing and want to broaden their experience. The course may also be useful for people that have begun reviewing, but want to be prepared for reviewing contributions in other types of venues. In general, there are no prerequisites to participating in the course. At least, participants should be familiar with basic PCS terminology and the CHI conference concept (and CHI research in general).

¹CHI Meta Discussion

²<http://bit.ly/peer-review-tutorial>

2 COURSE CONTENT

The course, which has been delivered in person at 4 previous occasions, and fully online twice³, is broken up into two main halves: comprehension of venues and submission types, and understanding the components of a good review.

Unit	Part I
1	Venues and Submission Types
2	Roles, Processes, & Decisions
Break	
Part II	
3	Producing Useful Reviews
4	Critiquing Examples of Reviews

Table 1: Typical Schedule

Part 1 is focused on the first two learning outcomes. It is intended to help participants reflect on why we submit different types of submissions to different venues, and what those venues want. For example, a workshop typically wants material that invokes discussion and presents exciting early ideas. Whereas full peer-reviewed venues like journals and some high ranking conferences, want important, novel, significant, and rigorous submissions. By doing this, we also discuss the different roles involved in making the decision, and the processes used by people in those roles to make them. We compare, therefore, typical journal processes (including advertised flow diagrams, and the instructors experiences as a Deputy Editor and Associate Editor), extreme examples of conference processes (as used at e.g. CHI), and those used by small groups of workshop organisers. As part of this, we will discuss the review process at CHI and compare this to the recently improved journal-based conference review process at CHI PLAY.

The process involved in the first part also serves as a chance for the instructor to comprehend the variety of research fields (in this case different fields relating to CHI) of participants, and the types of venues people might submit to.

Part 2 is focused on considering the structure of reviews, based upon the reflective understanding of venues built up in part 1. The purpose of a review is considered from the perspective of different people that will read it, using scenarios from different types of venues. This includes both what will be useful for the authors, and what will be useful for the senior reviewers. For this particular delivery context, the course will increase the focus on recommendations specifically from CHI for reviewing papers and the needs of ACs, SCs, and papers chairs, but still consider other types of venues both within and external to CHI.

This process is then followed by a group critique of a series of anonymised proto-reviews (based on reviews that the instructor has had access to in the past), which comes in two challenges: a) identifying the type of venue the review was produced for, and b) what the recommendation of the author is. This is complemented by activity that examines 5 different anonymised proto-reviews for the same journal article, which vary dramatically in their recommendation and quality. Finally, participants will make attempts at

³And was due to be delivered at CHI2020, but was ultimately cancelled

reviewing a paper mock manuscript that will be circulated before the beginning of the course following the review process outlined in the first unit.

2.1 Practical Work

The course is typically ~75% practical work, involving: facilitated discussions designed to bring participants through stages of understanding, and practical experience of critiquing example reviews. When delivered online, the course some activities are carried out through platforms like Miro⁴, and others are assigned as independent work between sessions. Remote participants will be able to submit their answers to the review-critiquing exercises before the final session begin. These answers, along with questions submitted throughout the course to slido⁵, are then discussed in the final session.

Part 1 uses whiteboards, post-it notes, flip-chart paper, and marker pens to take participants through a series of 8 incremental activities. The majority of the first half, therefore, is facilitated workshop activities around tables, augmented with information in slides as and when relevant; the outcome of the activities is shaped by the knowledge and experience of the instructor to reach certain final states. When online, these activities are carried out through online whiteboarding platforms.

Part 2 includes the majority of 'taught material', however it still includes one minor activity (looking at example review forms as a group), and the main review-critiquing activity that makes up the entirety of the 4th unit. This final unit is 100% discussion-led practical work, critiquing a) whether reviews match a venue, b) whether they match the recommendation, and then c) whether each of 5 reviews for the same article provide good and bad feedback. When online, these activities are assigned as independent work between sessions, and discussed collectively in the final session.

2.2 Resources

Although certain formal guides exist (e.g. [12]), these vary heavily from discipline to discipline. Instead, as we progress through the content of the course, we consider official resources produced by publishers like Springer [11], Elsevier [5], and Nature [13], as well as advice from experts in our own community [2, 4, 7, 9] (see e.g. Table 3). A recent community contribution is a detailed working-document guide to reviewing for CHI⁶. This course complements such guides (with often act as a checklist and process overview), with more generalised and reflective insights into reviewing practices.

Participants are able to keep copies of the example reviews, and are given a digital handout with key information slides and links to resources.

3 PLAN FOR AN ONLINE CHI2022 COURSE

To make the schedule accessible to participants around the world, and to make best use of timing and remote ways of working, the course is recommended to take part over two days, half a day on

⁴<https://miro.com>

⁵<https://sli.do>

⁶<https://nehakumar.medium.com/an-unofficial-guide-to-seven-stages-of-reviewing-for-chi-7938880fc895>

Activity	Timing Option 1 Taught by: Max L. Wilson	Timing Option 2 Taught by: Lennart Nacke
Part 1 (19th April)	9am-12noon UK (Units 1/2) 1:30pm India, 5pm Japan, 8pm NZ	9am-12noon New Orleans (Units 1/2) 7am Pacific, 10am Eastern, 4pm Europe
Independent Task	Homework	Homework
Part II (26th April)	9am-12noon UK (Units 3/4) 1:30pm India, 5pm Japan, 8pm NZ	9am-12noon New Orleans (Units 3/4) 7am Pacific, 10am Eastern, 4pm Europe

Table 2: Proposed CHI2022 Schedule for Multiple Timezones

- 1 The primary quality aspect for making a decision for or against a paper is its contribution. Sufficient contribution quality is determined via a “strong, tangible contribution to a specific aspect of the authors’ research.”
- 2 The papers contribution value needs to be of merit for the conference community. Papers on topics that are little known, unknown to the community, or extremely relevant at the time of publication may present value to the conference.
- 3 The contribution of the paper “needs to be proportional to the paper length.” With flexible page lengths, reviewers will have to judge contribution size on a case-by-case basis.
- 4 If the authors can swiftly correct shortcomings of the papers (e.g., “missing references, minor spell-checking, fuzzy statements, lack of implementation details”), the papers will be acceptable
- 5 Read papers with “care and sympathy,” ideally twice.
- 6 To produce a high-quality review, you should aim for about an A4 page worth of content (/ 500 words) that aims to provide information to the authors of how to improve their paper.
- 7 Clearly describe your reasoning for or against acceptance of the paper at the conference, emphasizing its contributions and merits.
- 8 The impact of the contributions for the CHI community has to be clear from your review.
- 9 Sufficiently discuss the contributions in your review and how they are important. Be explicit about the weaknesses and limitations as well but in a constructive and positive manner (without insulting authors).

Table 3: Common Reviewing Tips for CHI adapted from the ISMAR 2021 PC Chairs based on Hinckley’s advice

each, as shown in Table 2. Led from the UK, countries toward the east will take the course in two subsequent afternoons (in the instructors morning), critiquing the example reviews at their leisure in between. Likewise, Europe and Americas can take the course in subsequent mornings (in the instructors afternoon).

Submitting answers from the independent work to an online form, will allow the second day to focus on discussing these reviews and their flaws. This makes better use of time, allowing people to spend more time, and at their convenience, reflecting on this primary activity. This format will also allow the instructor to answer questions, from sli.do, submitted by both cohorts in both Part-2 sessions, meaning that everyone benefits from the questions asked, regardless of which timezones they are in.

4 INSTRUCTORS BACKGROUND

Dr Max L. Wilson, as Associate Professor at the University of Nottingham. Max, who sits on the CHI Steering Committee, has been a reviewer for CHI for 15 years, and has reviewed for many other conferences including CSCW, UIST, SIGIR, CHIIR (and its former IiX), ISWC, WWW, UbiComp and MobileHCI. Max has also reviewed for journals including: JASIST, JWS, IJHCI, IP&M, TOIS, TOCHI. Max has served as a senior reviewer (AC) for CHI and CSCW since 2014, and nas a Subcommittee Chair (SC) for the Understanding People subcommittee for 3 years. Max has been an Associate Editor for

IJHCS and IP&M, and now serves as the Deputy Editor for IJHCS. Max has also acted as Papers Chair for IiX2014, posters chair for IiX2012, Courses Chair for CHI2016 and CHI2017, Panels Chair for CHI2018, and on the Best Paper Committee for CHIIR2018. Max has delivered this particular course on five prior occasions, at national PhD student events, and at specific universities in the United Kingdom.

Dr. Lennart E. Nacke is an Associate Professor and the Associate Director, Graduate Studies at the Stratford School of Interaction Design and Business, at the University of Waterloo. He runs the successful *How to Write CHI Papers* podcast and an interview series about writing CHI papers on YouTube, also a course at CHI for more than 5 years. He has served on the SIGCHI program and steering committees and taught University graduate classes on HCI research methods. Dr. Nacke has co-organised workshops and courses for CHI over the past decade; he also is currently a full papers chair of CHI PLAY 2022 and Associate Editor at IJHCS, chaired the CHI PLAY 2014 & 2019 and Gamification 2013 conferences, served as technical program co-chair for CHI PLAY 2015 and CHI Games and Play subcommittee co-chair for CHI 2017 & 2018, INTERACT 2019 full papers co-chair and was the chair of the CHI PLAY steering committee until 2018. He has also reviewed hundreds of papers and taught a Masterclass on reviewing papers at CHI PLAY 2021.

ACKNOWLEDGMENTS

Max's work is supported by the Engineering and Physical Sciences Research Council [EP/M000877/1, EP/M02315X/1]. Lennart would like to thank all his graduate students, for teaching him as much as he is teaching them. Mentoring them continues to be his most rewarding professional journey. His work was supported by his NSERC Discovery Grant 2018-06576, the Canada Foundation for Innovation John R. Evans Leaders Fund 35819 "SURGE—The Stratford User Research and Gameful Experiences Lab," the NSERC CREATE SWaGUR grant, Mitacs Accelerate, and CIHR.

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