

## ■ Editorial Introduction

# ■ Are You Reviewer 2: Three Ideas for Better Reviewing

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Dear colleagues in the HRI community,

I have been given the honor and privilege to write the editorial introduction for this final issue of the Journal of Human-Robot Interaction, before its reemergence as the ACM Transactions on Human-Robot Interaction. It has been a distinct pleasure to serve as the JHRI Managing Editor for the last two and a half years. I am grateful to our founding editors, Sara Kiesler and Mike Goodrich, for giving me this opportunity. Working with our current editors, Chad Jenkins and Selma Šabanović, we have made great steps to continue advancing the journal and its scholarship. All of us are already working hard to produce an outstanding first issue of ACM THRI!

I wanted to write for this issue about the reviewing process in the HRI community. My opinion is not meant to be a definitive statement on reviewing advocating for one-size-fits-all solutions. I consider this the beginning of a conversation about our culture of reviewing and its impact on the intellectual nature of our field.

The field of HRI is an open and accepting one, bringing in researchers from computer science, engineering, communications, psychology, medicine, anthropology, and many other disciplines. This multidisciplinary has been a boon to the field, assembling fine minds from across the disciplinary spectrum to address the challenges and opportunities of our emerging research domain. A necessary part of this acceptance has been the use of a diversity of design paradigms, social science methods and analyses, in addition to a variety of engineering and computing methods. Multidisciplinary has made us stronger, and much of the work of the HRI community has found a home in single-discipline publications as well as within the major HRI publications. This fact speaks to the high quality of the work in our community.

A necessary consequence of this variety of paradigms and methods, however, is that we are asked to review papers that span disciplines, theories, and research approaches. While it would be fantastic if all HRI researchers were experts in all of these areas, it is unreasonable for us to be masters of every domain. It is also unreasonable to ask reviewers to review decades of interdisciplinary content in order to complete an article review. How, then, can we assure high-quality reviews without isolating less-well-represented disciplines from finding qualified review, and therefore dissemination,

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of their work?

In an ideal situation, all HRI papers would have three “perfect” non-conflicted reviewers who are able to address the entire scope of the paper with knowledge of each of the disciplines and a mastery of all the methods used in the paper. However, in the not-too-rare case when an editor is unable to find three people who meet all of the above criteria, they may have additional responsibility to ensure the paper gets a qualified review. As someone who has served frequently as a program committee member, area chair, managing editor, and associate editor of numerous publications, I can attest that wrangling reviewers can be a very difficult task to complete. The bulk of the work for JHRI Editorial involves recruiting, reminding, and begging reviewers to be fair and timely. Yet, we all can take steps to make the review process more accurate and fair to every paper. Just remember, the reviewers of your papers are the authors of papers you review.

Below are three suggestions I have to offer.

First, be generous in your choice of keywords describing your expertise. Editors and program committee members very much appreciate when reviewers keep their keyword lists updated such that reviewer databases are usefully search-able. Yes, it may result in a larger number of “asks” for paper reviews, but it will help improve the overall quality of our reviewing.

Second, consider your responsibility as a reviewer. In particular, be candid about your level of confidence in your reviewing ability for each paper that comes across your desk. While most papers I am asked to review fit nicely in my reviewing comfort zone, I will occasionally be asked to review a paper that does not. It is difficult to tell someone you are not confident in your ability to review a particular manuscript. However, being honest about your own limitations will help provide every paper with a complete and honest review. Such insights will greatly improve the quality of editorial decisions. Declarative statements to the editors about the suitability of reviewing expertise with each of the methods used and the scientific disciplines and concepts represented in the paper are essential for editors to make informed decisions. Sometimes, a reviewer recognizes that they are not able to assess the entirety of paper, but they are expert in a portion of its contents. In such cases, they should note precisely which portion of the paper they feel competent to review and (more importantly) which content they do not feel comfortable evaluating. A meta-reviewer, so alerted, would be able to secure an additional review on that specific section to provide a full review of the entire paper. This frankness could be a way to avoid the need for reviewers to be Jacks- and Jills-of-all-trades, and thus provide a wider range of expertise to paper reviews.

Third, training our students on proper reviewer practices is critical to continue to develop a high quality reviewer pool for the future. This point does not allege that reviewer training is completely absent or neglected. However, we have all felt the sting of poorly crafted, unfair, and/or biased reviews. When you complain about a review, just remember the HRI community and its reviewers are the products of our own training. Although I focus on student training below, it is important to recognize that training occurs throughout our careers, in program committee meetings, funding panels, workshops and symposia, and even informal discussions among community members.

Review training is both a necessary component of research apprenticeship and cultivating the scientific balance of openness and skepticism, especially needed as our field grows and diversifies even more. Students can be extreme, positively or negatively, in their reviews due to their inexperience with developments in the field and its research practices. It can be tempting to focus only on the negative aspects of the paper without interrogating its positive aspects. Similarly, it can sometimes be difficult to tease apart a persuasive presentation of methods, data, and conclusions without answering whether the paper’s claimed contributions are adequately supported scientifically. Graduate-level classes and one-on-one mentoring both provide excellent opportunities for training the next generation of HRI reviewers. I have seen several examples of graduate seminar classes that ask students to review published works (or unpublished papers from their research labs) and provide

reviewing feedback related to these issues. From feedback on such paper summaries and reviews, students can learn how to separate small inconsistencies in an experimental design from large confounds that cast doubt on the conclusions of the paper, as well as how to differentiate between large conceptual issues and wording issues with a paper that can easily be fixed in a revision. Early training in this fashion can help to improve review quality, graduate student efficiency, and in the end increase the participation of students in the development of the HRI community.

Learning from our experiences with JHRI, we have created a more expressive reviewer scorecard for ACM THRI. The ACM THRI reviewer scorecard is tailored for reviewers to provide clear feedback to authors about their work and how it can be improved. Hopefully, such processes can inherently inspire open-minded and constructive critique. In the end, however, the quality of reviews depend on us being thorough and considerate.

My aim in this editorial has been to start what I hope will be an ongoing and inclusive discussion on reviewing practice and training in HRI. I invite editorial submissions to Transactions on Human-Robot Interaction to further this topic.

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