

# Diversity and Inclusion in the Software Engineering Research Community

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## ACM SIGSOFT Diversity, Inclusion, and Belonging Efforts

ACM SIGSOFT has a number of ongoing initiatives to increase inclusion and belonging at SIGSOFT sponsored conferences. The SIGSOFT Diversity, Inclusion, and Belonging Co-Chairs, Kelly Blincoe, Jo Atlee, and Byron Williams, have been working on a set of guidelines and documents to help conference organizers in this regard including developing a code of conduct template and guidelines for inclusive conferences, accessible submissions and presentations, session chairing, and reviewing practices. These documents are currently being reviewed and feedback is being sought from a range of community members. A survey of the SIGSOFT community on a variety of inclusion related topics is planned to be sent to all SIGSOFT members later this year.

In addition, many conferences have begun to include Equity, Diversity, and Inclusion (EDI) chairs on their organizing committees. The SIGSOFT Diversity, Inclusion, and Belonging Co-Chairs are also reaching out to conference organizers to encourage more conferences to name EDI chairs.

## Birds of a Feather Session on Diversity and Inclusion at ICSE 2020

To encourage discussion on diversity and inclusion topics within the research community, Alexander Serebrenik and Kelly Blincoe hosted a Birds of a Feather session at ICSE 2020. This session was structured based on several “controversial statements”, which were derived from prior discussions within the software engineering research community. The session chairs used a MentiMeter<sup>1</sup> survey to facilitate discussions. For each controversial statement, the respondents were provided with three options: Agree, Disagree and Unsure. After each controversial statement, respondents could provide more detailed open-ended feedback on the topic of discussion using MentiMeter as well as through informal discussion on Zoom and in the Zoom chat. Participants appreciated the variety of communication options. Here, we give each controversial statement, explain the source of the controversial statement, and summarize the resulting discussions.

1. “Activities exclusively targeting minority groups lead to exclusion rather than inclusion, and should not be organised.” This statement was rephrased based on the feedback from ASE 2019. The original discussion was about women-only lunches. We received 10 responses, 6 respondents disagreed with the statement and 4 were unsure. For

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<sup>1</sup> <https://www.mentimeter.com/>

example, one of the participants said that targeting a minority group can increase the recognition of their work, but they felt that too much emphasis could feel like exclusion. Along similar lines another participant suggested that these activities should not be exclusive, e.g., lunches targeting women should also be open to non-women allies. This is, however, not always a good idea, e.g., for “invisible” minorities such as LGBTIQ+: opening these activities to allies might inadvertently out some of the participants. Finally, one of the participants has indicated that they recognise the importance of these events but do not feel comfortable joining them as not to stress them being different to the “default”. One participant discussed a need to identify the purpose of the events (creating a safe space for members or bringing attention to the minority group) and to plan them accordingly. Another potential way to mitigate this feeling of differentness is to not to make it obvious to other attendees outside of the minority group the reason for the event. This could be accomplished by sharing the details only with the minority group members, for example, via a Slack channel and having some non-descriptive event/table name.

2. “Hybrid conferences will result in inequality between in person attendees (first class) and virtual attendees (second class).” This concern was voiced during the ICSE 2020 Townhall meeting. Respondents predominantly agree with this statement (10/18) or were unsure (6/18). These concerns were voiced during the discussion. One of the participants conjectured that “in future having hybrid conferences could help those in poorer countries to attend, but maybe could also be excluding and divisive for those people at the same time.” Another concern is related to less affluent funding organisations eventually no longer supporting physical participation. A possible solution would be to connect physical ‘hubs’ and virtual conferences. The discussion also noted that it would be important for hybrid conferences to consider ways to integrate first time attendees given fewer chances for socialization.
3. “Registration fees should be increased to improve accessibility (e.g., captioning, live translation including sign languages, sensory rooms, etc.)”. There was no clearly dominant opinion here: 6 respondents agreed, 8 disagreed and 4 were unsure. When asked about the extra fee the respondents would be ready to pay, the amounts ranged between \$20-\$50 and 10-20% of the registration fee. One participant was ready to double the registration fee. Participants suggested skipping the conference dinner or expensive hotels to improve accessibility, and to reduce the involvement of professional societies (IEEE, ACM). One participant was strongly opposed to this proposal.
4. “Conferences’ fees should not be used to provide free childcare since this privilege is usually limited to English-speaking children.” This statement gained limited support (1/14), while 6 respondents were opposed to it, and 7 were not sure. Many respondents supported organising childcare services at conferences; one respondent stressed that this should be an extra option and should not be covered by a regular registration fee.
5. “Reviews should not take grammatical mistakes or typos into account. Non-native speakers should be able to express themselves in their own way.” This statement is inspired by Wong-Villacres et al. “Reflections from the Classroom and Beyond: Imagining a Decolonized HCI Education”. The same authors also recommend HCI

students to express themselves in their first language and ask their peers to translate. Respondents were split on this issue: 6 agreed, 6 disagreed, and 5 were unsure. Since the mentimeter survey was anonymous, we could not check whether there was any difference in support between native and non-native English speakers. A follow-up discussion seemed to converge to “typos are fine as long as the text is understandable”, and included discussion of copy-editing support and support by peers (e.g., PhD students) who are native speakers. A broader discussion of shepherding ensued, with one of the participants wondering whether there is any incentive for the PC members/more experienced members of the community to do shepherding. This problem is, however, not limited to shepherding but is related to mentoring in general: the issue of incentive and recognition for the mentors/shepherds is tricky, and often not considered or valued as part of academic workloads. Moreover, shepherding has a big risk that the reviewer might become less “neutral” and become almost a kind of co-author without being recognised as such. Another potential way for conferences to be more inclusive is for them to provide copy editing or translation services for authors.

6. “Conferences should not be organised in locations that cannot provide a safe environment for all participants (e.g., women, LGBTIQ+, racial minorities).” This “controversial statement” comes from the charter of the IEEE International Conference on Software Maintenance and Evolution. At first sight this statement is not controversial: 12 respondents agreed, 4 were unsure. However, later we elaborated that it contradicts a desire to support scientific communities all over the world, and in particular in countries that are rarely represented at major software engineering conferences. A priori excluding these countries excludes research communities in these countries. In a follow up discussion, respondents agreed that there should be a certain minimal level of safety, and that full safety cannot be achieved. One of the respondents indicated that conference participation is a personal choice - however, we know of participants who decided not to attend a conference due to its location. There was also a broader discussion on what really constitutes a safe location.
7. “Rolling deadlines (multiple deadlines per year) induce perpetual stress and as such are detrimental for early career researchers.” The topic of rolling deadlines was discussed during the ICSE 2020 Townhall meeting. Only 3 participants have agreed, 5 disagreed, and 9 were unsure. In the follow up discussion, the participants indicated that some people perform better under stress, and that as authors some of them will appreciate the rolling deadlines. Concerns were raised about the impact of this model on the review load of the program committee members and on the combination of the rolling deadlines with presence of multiple software engineering conferences.

At the end of the meeting we asked the participants for suggestions on how to make the software engineering research community more inclusive. The following topics were mentioned:

- We need to ensure diversity in all activities we organise, e.g., no all-male panels, all-male keynotes or AMA sessions.
- The opening of ICSE and other conferences should show the number of people from each country, such that participants from these countries know that they are not alone. It

is important to support creation of role models for researchers from underrepresented communities. One suggestion was to include more statistics in the conference opening on the number of attendees from each country and number of PC members from each country to make this information more transparent. This could be taken a step further by also showing participant numbers across other diversity axes (e.g., gender, age, SOGI). However, this would also mean that during the registration process, this information would need to be collected, and this could be seen as intrusive.

- One of the ways we use to reach out to underrepresented communities is to have an open call for PC members (e.g., such a call took place for ICSE and ICPC). However, one needs to ensure that the channels used to distribute these calls are appropriate to reach those communities: we tend to use Twitter and Facebook, which are not necessarily available in these countries.
- The need for inclusion targets was also discussed. One participant noted that conferences are unlikely to make significant changes without clear and specific goals (i.e. specific gender, geographic, and tenure diversity goals for PC and OC members). It was also noted that this needs to be done with care as to not overburden certain members of the community.

## Conclusion

The recent push to virtual conferences, spurred by the COVID19 global pandemic, has caused an abrupt change. Yet, many conference participants are noting the advantages brought by this new format. As a community we should ensure not to lose these benefits as conferences return to in-person events. Hybrid events can enable more participants who otherwise could not attend due to price barriers or restricted ability to travel. However, time zones must be carefully managed as it will be more difficult to accommodate far away time zones when a conference is planned around a single physical location. Another option is to have various locations where people can meet locally to watch talks together. In any case, conference organizers should aim to make the time zone bands as inclusive as possible so as to not exclude certain geographic regions from attending live.

For virtual conferences, organizers might consider an online communication channel like Slack to supplement the in-person discussions and to encourage discussions between virtual and physical attendees. These channels also have the added benefit of being able to facilitate in-person networking in a variety of ways. Conference organizers could create various channels where people from different minority groups could connect and plan to meet. Specifics of the events could be shared only with the members of the group. Similarly, channels could be created based on different social interests. This could help newcomers find other attendees with shared interests more easily.

As our research community grows a greater awareness of the need to build inclusivity into our conferences, we encourage all members of the community to consider what small part they could play in making our research conferences more welcoming for all.