Report of the ACL Committee on the Anonymity Policy

Committee members:

- Leon Derczynski (IT University of Copenhagen & University of Washington)
- Jason Eisner (Johns Hopkins University)
- Yoav Goldberg (Bar Ilan University)
- Chair: Iryna Gurevych (Technical University of Darmstadt & MBZUAI)
- Lillian Lee (Cornell University)
- Joakim Nivre (Uppsala University & RISE)
- Brian Roark (Google)
- Thamar Solorio (MBZUAI & University of Houston)
- Yue Zhang (Westlake University)
- Chengqing Zong (Chinese Academy of Sciences)
- Diyi Yang (Stanford University)

Recommendations	2
Committee work process	3
Rationale for eliminating the anonymity policy	4
Elaboration on rationale for committee recommendations (a-d)	
Limitations to be addressed in the future	6
Implementation of the proposed 2023 policy	7
Proposals considered	9
Proposals regarding pre-printing	9
Proposals regarding social media discussion	12
Proposals for affirmative action	12
Proposals focused on affirming the role of peer review	13

Recommendations

In this report, we present our recommendations first, as we expect these are of primary interest to the reader. The rest of the report provides the reasoning behind these recommendations.

We highlight that submission and reviewing should remain double-blind and the submitted papers should be fully anonymous.

Recognizing that there are many trade-offs involved, and after conducting a community-wide survey and considering numerous options (listed in the section "Proposals Considered" near the end of this document), we recommend the following:

(a) change ACL policies to now allow both anonymous and non-anonymous pre-printing at any time, so that technical conversations about work may be had without restriction.

(b) make it explicit that discussion of unpublished work on all media, including social media, is also allowed, but that extensive promotion and PR are discouraged (though not forbidden).

To allow for (a) and (b) while maintaining the fair and unbiased nature of the review process, and to avoid increasing the pressure to post and read preprints, we recommend the following mitigations:

(c) instruct program and selection committees to avoid relying on reviews where reviewers were biased by outside knowledge of the paper or its authors, and to break ties during final decisions in favor of papers where a more trustworthy assessment was obtained.

(d) add new best and outstanding paper awards for submissions that remained anonymous to the public during the whole process, to ameliorate the "publicity deficit" for such submissions. (The precise eligibility criteria for these awards would be at the discretion of the awards committee. Of course, such submissions would remain eligible also for all other awards.)

(e) reiterate ACL's <u>current guidelines</u> on *citation*, which would remain in effect. In an era with many preprints, these guidelines somewhat reduce the expectations on authors to know about all unrefereed work or compare with all contemporaneous work.

(f) track the impact of these policy changes over the next two years, including any unintended consequences.

Some specifics for recommendation (c):

- Venues will prefer to avoid assigning reviewers who think they know the authors' identities or affiliations. Reviewers may be asked to indicate such papers during the review assignment process.
- Reviewers will be asked on the review form if and in what way their review might have been affected by any outside information they may have acquired before or

during the review period. Wording for these questions is suggested below. For example, they may have come to know who the authors of the paper are, through public or private discussion, or they may have seen a different version of the paper. Reviewers will be reminded not to seek out such information.

 When conducting discussions and making acceptance decisions, the program committee will use its judgment to consider all relevant factors, including reviewers' knowledge of outside information such as author identity. Potential actions could include (i) downweighting reviews where the reviewer had outside information about the paper, (ii) soliciting additional reviews, or (iii) giving a lower ranking to a paper whose reviews may have been unduly influenced by reviewers' outside knowledge, all else being equal.

Committee work process

In 2017, the ACL Exec appointed a committee that devised new <u>policies for submission</u>, <u>review</u>, <u>and citation</u>, in response to the increasing practice of pre-printing. In 2023, the ACL Exec created a new committee to revisit these policies in response to a petition by over 300 community members. The two committees have had four members in common.

The committee was tasked with the evaluation of the 2017 policies on pre-printing and on social-media discussion. From Aug-Dec 2023, the committee had 9 Zoom meetings, as well as over 50 discussion threads by email and on a private discussion forum, comprising hundreds of posts including many detailed arguments. While the committee members held quite varied points of view and expressed them strongly, the discussions were thoughtful, clear, and productive, and the committee ultimately reached a consensus resulting in the present document.

The ACL exec asked the committee to solicit community feedback. Therefore, during its work, (1) the committee conceptualized and conducted a survey receiving over 3,000 responses from the community. The survey was broadly advertised, through the mailing lists of the past conferences including ARR (on 15.9.2023), EMNLP22 (on 14.9.2023), and EMNLP23 (16.9.2023), and the official ACL communication channels to get community feedback, suggestions, arguments and perspectives. The committee read all responses, and all provided perspectives were useful and found their way into the resulting deliberation, even if a perspective was raised by only a single individual. (2) The committee invited several people including members of underrepresented communities to speak to the committee. Their arguments were seriously considered. (3) The committee chair has discussed the results of the survey and potential measures to support underrepresented groups in a personal meeting with the ACL Equity director. Finally, (4) the committee has continued to receive further input from a wide range of individuals and the ACL Ethics committee, which the committee has considered via online discussions and during the online meetings. In addition, the aggregated results of the survey and clusters of the free-text feedback to open questions were published to the ACL membership on November 13th, 2023.¹

¹ <u>https://nextcloud.ukp.informatik.tu-darmstadt.de/index.php/s/B3RNXrzaXdpTDPt</u>

Rationale for eliminating the anonymity policy

Peer review aims to serve both scientific discussion and career progress by providing a trusted signal of high-quality research. For peer review to deserve this trust, it must assure *high-quality* and *unbiased* reviews. Protecting the integrity of doubly-anonymous reviewing is one ingredient in earning trust. The 2017 policy attempted to protect doubly-anonymous reviewing through two specific mechanisms: (a) eliminating non-anonymous preprints for the subset of papers that were completed just before the submission deadline, through a **strict rule** forbidding pre-printing during the anonymity period, and (b) reducing the risk of reviewers discovering the identity of authors of papers with older preprints, through a **soft plea** to authors to not publicize these papers during the anonymity period and to reviewers to not actively search for preprints during the review process. To determine whether the policy has achieved its intended purpose would require an investigation beyond the abilities of this committee, but we have tried to take into account the evidence that has been available to us.

It seems clear that the strict rule against pre-printing during the anonymity period has at least been successful in reducing the number of papers that are available as preprints during the anonymous review period. The percentage of submissions with preprints at ACL 2023 was 13.8%, whereas the corresponding ratio for machine learning conferences like ICML and ICLR (which do not have any restrictions on pre-printing) is typically above 30%. Moreover, as many as half of the latter may be submitted during the last month before the submission deadline, as shown by statistics from ICML 2021, where 17% of the submissions had preprints submitted within a month before the deadline, and 19% had older preprints.

Also, while the anonymity period does not stop all leakage of information to reviewers (e.g., they can still find preprints on arXiv), it is important to note that the existence of a preprint does not in and of itself destroy anonymity. According to information collected in the review process of ACL 2023,² 91% of the submissions remained wholly anonymous in the sense that reviewers could not guess the identity of the authors, and the percentage of submissions where reviewers could guess author identity because of the existence of a preprint was only about 4%, which amounts to about 30% of all submissions with preprints.

Now, it also seems clear that the policy has had some negative effects, although these are harder to measure exactly. Authors may rush to post their preprints before the anonymity deadline, which has a negative effect on the quality of preprints. Moreover, since authors must wait until acceptance before updating the preprint, they are unable to correct errors or add new results during the anonymity period, including results that change the conclusions of the work. Forbidding authors from correcting the public record sits uncomfortably with scientific values. On the other side, authors who do not preprint may have to wait a long time for their papers to appear, particularly if the paper is accepted only after multiple review cycles with overlapping anonymity periods. (This may happen even to submissions that were already publication-ready, due to variance in reviewing.) In some cases, this results in their work frustratingly being scooped by other papers (often non-ACL papers) that are published or preprinted during this delay.

² Anna Rogers, Marzena Karpinska, Jordan Boyd-Graber, and Naoaki Okazaki. 2023. Program Chairs' Report on Peer Review at ACL 2023. In *Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics*, xl–lxxv.

When it comes to the second part of the policy, which asks authors "not to advertise [papers] with preprints on social media or take other actions that would further compromise double-blind reviewing during the anonymity period", there seems to have been considerable confusion about what the policy entails. The intent of the 2017 committee was never to prevent productive scientific communication in the community (whether on social media or elsewhere), only to prevent excessive or unmotivated advertising. However, drawing the distinction between appropriate and inappropriate dissemination and communication has turned out to be extremely difficult. And it has unfortunate side effects from potentially blocking useful communication with all of the *non*-reviewers in the world. The committee therefore no longer thinks that it is tenable to try to regulate discussions on social media.

The challenge of making this distinction has led to a situation where many of our members complain that the policy is bureaucratic, confusing, difficult to work with, and obstructive to potentially useful discussions. If so, this undercuts peer review's goals of *serving* career progress and scientific discussion. Of course, ACL's peer-reviewed channel for scientific communication has remained open to all; the concern is the effect on other types of communication.

One survey respondent calls the policy "exclusionary," stating that newcomers require guidance from an insider in order to know what conduct is allowed. Others argue that the policy is "exclusionary" because it blocks lesser-known or isolated researchers from using social media to discuss their most current work, connect to the community, and level the playing field. Several survey respondents have been deterred from describing their latest work in job applications, job talks, or grad school applications; on personal websites; or in response to public attention and reporters' inquiries. Many respondents and some committee members feel that the policy has a chilling effect on scientific discussion, at a time when the Internet could be broadening and democratizing discussion (outside formal channels such as paper review).

Given these negative reactions, the fact that peer venues have not adopted similar policies makes it increasingly difficult to maintain the current policy. Many ACL authors have noted that it puts them at a disadvantage relative to the many non-ACL conferences that do not share ACL's policies (such as ICML, ICLR, NeurIPS, and AAAI), and also relative to influential industry labs that self-publish much of their work. An enormous number of survey respondents commented³ that the field is moving much faster than current review cycles and that those who wait to preprint fall by the wayside. Whatever the merits of the 2017 policy, it is difficult for ACL to *unilaterally* maintain a policy that authors perceive as hindering their careers. Some authors – especially in highly active and competitive areas of NLP – are shifting their submissions to non-ACL venues. This fragments the NLP community, with a significant risk that ACL venues will lose good authors and reviewers and will decline in reputation.

³ Paraphrased comments for Q9-Yes (with keypoints): <u>https://nextcloud.ukp.informatik.tu-darmstadt.de/index.php/s/Cg3LZEnp9nycEBA</u>

Elaboration on rationale for committee recommendations (a-d)

The integrity of the double-anonymous review process is the central concern. The question is how different approaches might be able to reduce *two* kinds of harms: information leakage during the review process, and impedance to scientific communication. Both can harm people's careers (and with disparate effects on different groups). Both can affect the shape and quality of what ACL publishes.

The proposed changes given in the first section of this report *preserve* and extend the pre-2017 and post-2017 ACL general practice⁴ of requiring *submitted papers to be thoroughly anonymized*. Neither the 2017 nor the proposed 2023 policy can guarantee wholly double-anonymous reviewing. However, the proposed new policy aims to more precisely target the problem. That is, the 2017 policy closes off a whole range of scientific communication in a possibly unsuccessful attempt to keep 3 future reviewers unaware of author identity. The proposed 2023 policy allows scientific communication, but then tries to specifically identify reviewers who know author identity and biased reviews and avoid relying on them (see recommendation (c) and subsequent details).

Authors would still have an incentive not to over-publicize their work prior to acceptance, since this may impact the ranking of their papers due to possibly biased reviewers (see recommendation (c)). There is also an extra incentive to not preprint or publicize on social media at all, in the form of increased chances for winning a paper award (see recommendation (d)).

Limitations to be addressed in the future

The rapid growth of our field, of preprint culture, and of social media has created many stresses. *Neither the 2017 policy, the new proposed policy, nor any other alternative that has come before the committee*, solves the following major issues, which are of concern to the membership and the committee. The committee recommends that ACL address these with other initiatives.

- Low-quality reviews. Reviews can be uninformed or careless, and can be systematically biased by features of a paper that are retained even under anonymous review.
- Lack of timely curation. Preprint culture has created too many obligations to read and cite questionable work. (See recommendation (e).)
- Role of reputation and publicity. The papers that receive the most attention -- both as preprints and as publications -- are not necessarily the best papers, but those that are written by established or self-promoting authors. Some authors would prefer to let their publications speak for themselves but fear falling behind. Unfortunately, this effect is not eliminated by enforcing pre-publication anonymity. After a paper is officially accepted, the authors' reputation (perhaps unfortunately) affects how widely it is read. To ensure that their paper is noticed, many researchers will still need to publicize it. Given the existence of many venues that do not bar social media

⁴ There exist some exceptions such as the *Computational Linguistics* journal.

discussion and promotion, this post-publication promotion is significantly harder to do for papers in "hot" topics, where the "competition for attention" already happened weeks or months prior.

Implementation of the proposed 2023 policy

Once the proposed policy is approved by the ACL executive committee, all ACL venues with still pending submission deadlines would immediately fall under this policy. Venues for which the submission deadlines have already passed would fall under the previous policy.

The various venues associated with ACL – including CL, TACL, ARR and individual conferences or workshops – have varying reviewing protocols and policies. Hence we are providing recommendations and suggestions to editors and program committees regarding implementation of recommendation (c), trusting in their judgment to make appropriate decisions for their particular venue. As with the existing policy, under the proposed policy some reviewers may obtain information outside of what is provided in the reviewing system, including author identity. As has been stated earlier, preprints and social media are not the only modes by which such information may be obtained, though they certainly contribute to its diffusion. It will not always be feasible to assign new reviewers in such circumstances, but decision makers should take reviewers' knowledge of outside information – and any resulting reviewer bias – into account during the decision process, much as they take into account other factors, such as reviewer confidence in their assessment.

The nature and extent of a reviewer's outside knowledge of the paper must be determined at the time of review. See below for suggested wording of questions to reviewers both during paper assignment and when the review is submitted. If possible, reviews should be solicited from reviewers who have no knowledge of author identity, i.e., full doubly-anonymous review. However, since (under the proposed policy) authors will be able to post deanonymized preprints at any point in time during the review process, we recognize that securing three fully doubly-anonymous reviews for every paper will be difficult, and sometimes unrealistic, particularly given increasing paper submission numbers and the pressure for speedy reviewing cycles. For resubmissions, reviewers who originally did not have knowledge of author identity may have acquired that knowledge in the meantime, in which case additional reviewers may be solicited for the resubmission. The original reviewer may also be asked to review the resubmission as well, despite the knowledge of author identity, if the area chair or action editor believes that useful information would be obtained from such a review. A similar approach can be used for area chairs and/or action editors if they learn of author identity.

Decisions based in part on reviews from those with knowledge of author identity should take that reviewer's knowledge into account as described above, however that knowledge came about. The decision makers may choose to downweight reviews where the reviewer had knowledge of author identity, as they may with reviews from reviewers with low confidence. One critical scenario where this factor may play an important role is when ranking borderline papers. All else being equal, the decision maker may choose to rank papers where reviewers had knowledge of author identity lower than papers where reviewers did not have such information, giving the latter fully anonymous papers the benefit of the doubt. Again,

we trust the decision makers at each of the venues to make appropriate decisions given the procedures and policies of their venue.

Here we provide suggested wordings of questions to reviewers, to determine the extent of their knowledge of outside information about the paper.

Suggested wording at review assignment time

Thank you in advance for reviewing for XYZ! We have tentatively assigned papers to reviewers. We now need to check if any adjustments to this assignment are necessary.

The following papers are currently assigned to you. For each paper, please answer the short questions shown.

[Paper number and title, with links to abstract and PDF]

[yes/no] Were you previously aware of any version of this paper? [yes/no] Do you think you know who wrote this paper (author names or affiliations)? [yes/no] Do you believe you can review the content of the paper fairly? [optional text box] Is there anything you would like to explain about your answers?

Suggested wording at review time (new section of review form)

XYZ practices doubly-anonymous review. It aims to evaluate anonymized submissions on their own merits. However, you may have inadvertently learned or guessed information beyond what this site shows to you as a reviewer:

- author names or affiliations
- earlier or later versions of the work
- opinions by others about the work (e.g., expressed on social media or in other papers)

Your answers below will not be seen by your co-reviewers or by the authors. Like the rest of your review, they are meant to help the area chairs conduct a discussion of this paper and make a fair recommendation. This information is important for area chairs and program chairs to take into account, since studies have shown a skew in scores, and in recommendations for best paper awards, when reviewers have certain kinds of outside information about a paper.⁵

1. What (if anything) do you know about this submitted paper from outside sources?

2. When and how did you come to know it?

3. How (if at all) do you think your comments and ratings might have been different without this outside knowledge?

Suggested wording for area chairs

For area chairs, when suggesting decisions, please take into account whether the reviewers have been aware of the authors' identity, and whether such awareness has influenced the

⁵ Anna Rogers, Marzena Karpinska, Jordan Boyd-Graber, and Naoaki Okazaki. 2023. Program Chairs' Report on Peer Review at ACL 2023. In *Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics*, xl–lxxv.

review. Try to avoid the influence of outside knowledge on reviews when making decision suggestions.

Checkbox: I have tried to make a fair decision by excluding the influence of outside knowledge on the reviews.

Remark: Venues may wish to augment this section with questions designed to uncover biases of other kinds, such as bias against non-native English writing.

We also provide suggested wording to implement recommendation (b).

Suggested guidelines for authors (could be included in CFP)

Discussing unpublished work. Scientific communication has evolved over time and takes many forms. You may wish to communicate with others about your unpublished research: for example, when giving a talk, when submitting a funding proposal, when soliciting advice or collaboration, or in a relevant public or private technical discussion with colleagues working on similar topics or maintaining a survey of work in the area. You may also wish to post a preprint or an announcement/summary of your work in the form of a blog post or message on social media.

ACL venues do not aim to penalize researchers for engaging in such activities. However, in order to evaluate your submitted papers fairly, ACL venues prefer to assign reviewers who are not biased by prior knowledge of that work or its authorship. As a consequence, advertising your unpublished work too widely or too memorably is unwise, because it could disqualify many knowledgeable reviewers. If this leaves it unclear whether your paper should be accepted, the venue may err on the side of caution and reject the paper.

Proposals considered

The committee considered over a dozen distinct proposals regarding pre-printing, drawn from community feedback and committee member discussions. All proposals assumed that actual submissions to ACL venues would still have to be properly anonymized. The proposals typically differed on what authors could do with their manuscripts outside of submission.

The committee also considered proposed policies about social media and publicity. In our survey results, social media discussion appeared to be a greater concern than non-anonymous pre-printing, in part for reasons not related to anonymity.

Proposals regarding pre-printing

These proposals are arranged roughly in order of increasing anonymity restrictions.

Non-anonymous preprints allowed at any time

- Shift the responsibility of protecting anonymity from authors to program committees. This is one of the committee's main recommendations (see recommendation (c)).
- No additional mechanisms applied. This might be applauded by authors who find the current restrictions onerous or confusing, and it is the practice of peer conferences in other communities. On the other hand, it risks increasing bias or the suspicion of bias in peer review.

• Technical means to hide information in preprints from reviewers

These proposals try to restore authors' ability to circulate preprints at any time under their own name, but reduce reviewers' access to authorship information.

- Anonymized submissions must have different titles/abstracts from any preprints. This would make it harder for reviewers to look up or recall the preprint version. Authors would be required to change the title and abstract when submitting to an ACL venue, although they could be changed back in the camera-ready version to preserve bibliometric matching.
- Preprints may have names but not affiliations. This compromise speculates that most reviewer bias stems from the relative prestige of the authors' institutions, and that most author names are sufficiently unmemorable that it is acceptable to include them rather than requiring preprints to be fully anonymous.
- Create a browser extension that blocks visibility of preprints from reviewers. Multiple survey respondents suggested that the reviewer's web browser could be made to redact information that a reviewer should not see. The committee feels that this solution would be difficult to deploy and enforce
 -- as well as being incomplete, since it would not operate until the review period started.

• Different treatment for papers that were non-anonymously preprinted

ACL has different subcommunities that may prefer different tradeoffs. Proposals in this category argue that two or more sets of rules can be accommodated, as long as the rules for each paper are clear to authors and readers. Most proposals in this category could be combined with one another. The committee was concerned, however, that authors would feel the need to strategize about which track to choose, leading to anxiety, regret, and disagreement among co-authors, and that readers would be unsure how the tracks actually differed in quality or selectivity. Defining the rules might also present continued difficulty.

- Notation on published papers as to which were non-anonymously preprinted and which were not. For example, the cited venue could be slightly different Readers can then be appropriately skeptical of publications whose review may not have been fully anonymous. This notation would provide some further incentive to authors to avoid pre-printing (which would reduce the burden of implementing recommendation (c) if that were also adopted). One concern about this notation is that it would unfairly cast doubt on many papers whose authorship was not, in fact, known to the reviewers.
- Different reviewing tracks for different levels of anonymity.
 More-anonymous papers would not have to compete with less-anonymous papers. Thus, authors could choose to avoid the risk of bias via not

pre-printing. Acceptance rates would be matched across tracks. In one variant, the less-anonymous papers would also have increased obligations to cite very recent work, since they are practicing "fast science via Internet."

- **Different venues adopt different policies.** This is similar to the proposals to have different citation forms and reviewing pools. Here these would be separated by publication venue rather than by track. A concern is that authors may not want to postpone publication to a later venue, and may not have equal access to all venues due to travel constraints.
- Compensate authors who avoided non-anonymous preprints with additional award and publicity possibilities. This is one of the committee's main recommendations (see recommendation (d)). Preserving anonymity is a social good, but some authors may not want to unilaterally give up self-promotion unless ACL promotes their work for them. The committee recommends that venues provide extra publicity for *outstanding* papers that are not otherwise publicized, and perhaps also for *all* accepted papers in that category. This may also reduce the pressure on authors to spend time on self-promotion.

<u>All preprints must be anonymized</u>

The principles behind this type of proposal, which would utilize OpenReview's anonymous pre-printing capabilities already available in ARR, had support. However, important concerns were:

- (i) There are good reasons for non-anonymous public discussion, such as job/graduate-school applicants needing to expose their work, authors requesting help, and authors defending or clarifying themselves in social-media discussions initiated by *others*.
- (ii) Citations of the preprint would be anonymous. Major platforms (e.g. Google Scholar, Semantic Scholar, DBLP) are unlikely to soon implement merging of the publication record of the anonymous preprint and the published paper.
- (iii) Competing with arXiv will be difficult; at present, preprints get less exposure if they are not on arXiv, which is unlikely to soon support anonymous preprints.
- (iv) Anonymous preprints might increase the risk of plagiarism while the preprint remains anonymous, though this is not a certainty.
- Authors are only allowed to preprint anonymously. In addition to concerns (i)-(iv) in the previous paragraph, a concern is that once a paper appeared non-anonymously (for example, after rejection from a non-ACL OpenReview conference, or on the webpage of a non-archival workshop), it would become permanently ineligible for submission to ACL venues.
- **During an anonymity period, authors are only allowed to preprint anonymously.** This addresses concerns about permanent ineligibility by substituting temporary ineligibility. This is ACL's current compromise policy, although to date, ACL has not actively encouraged or technically supported the use of anonymous preprints. As noted earlier, this policy still allows information to leak to reviewers, and makes it difficult to correct or improve manuscripts during one or more overlapping review periods. (It is unclear

how an author could make an anonymous update to an existing non-anonymous preprint.)

- Authors are forbidden from preprinting non-anonymously until their paper has been reviewed at least once. This is a compromise proposal to address the problem of overlapping review periods. Authors would be allowed to reveal their names after a first rejection.
- ACL itself makes submissions available immediately as anonymous preprints. This would combine with one of the above proposals, and aims to kickstart a culture of *anonymous* preprints. It would remove the current publicity deficit for papers whose authors do not take the extra step of pre-printing. (Authors would be allowed to opt out, e.g., to avoid a premature public disclosure of intellectual property.) As ACL would control the preprint server, it could implement standard policies about when to reveal names. It could also host a comment forum for each submission (although it might be hard for such forums to compete with other social media sites).

Proposals regarding social media discussion

These proposals focused specifically on social media discussion of preprints. They should *not* be interpreted as discouraging or prohibiting traditional communications such as talks and job applications, or personal communication. They are arranged roughly in order of increasing restrictions.

- **Remove any discouragement of preprint discussion on social media.** This is the committee's recommendation -- provided that at the same time, the review process is modified to address the resulting anonymity leakages.
- **Discourage but do not prohibit preprint discussion on social media.** This would return to the intent of the 2017 policy. However, online scientific discussion has enough salutary purposes that arguably ACL should not take a stand discouraging it in all cases. The committee does recommend discouraging excessive promotion that interferes with the review process (see recommendation (b)).
- Let reviewers/program committees judge whether social media promotion was excessive. Reviewers would be invited to consider community norms on this issue when assigning scores. ACL already relies on reviewers to judge many matters of scientific conduct, such as whether a paper overclaims or fails to run appropriate significance tests. Showing due respect for the anonymous review process would fall into this category: reviewers who observe what they consider to be an inappropriate level of advertising would be free to penalize the paper. (Advertising that is not observed by the reviewers is *prima facie* harmless to anonymity.) A concern is that different reviewers may approach this question differently, which adds to the variance of the review process. More importantly, this proposal fails to address the biases caused by *appropriate* social media discussion.
- **Restrict social media discussion by authors with many followers.** This proposal would prevent only posts that are likely to be widely seen, and would explicitly allow replies. A concern is that social media algorithms are opaque and vary by platform, so heuristics for estimating the reach of a post (such as number of friends or followers) may not be valid. In addition, within a small scientific subcommunity, a post may reach many of the likely reviewers without its absolute reach being large.

Another concern is that authors with many followers could evade the proposed restriction by promoting one another's work, or by replying to their co-authors' posts.

• Impose prohibitions on preprint discussion on social media. A large number of survey respondents⁶ commented that they saw no value in advertising or discussing papers before they were peer-reviewed, revised, and published. Some saw negative value, saying that social media reactions tended to be superficial, biased, and inequitable. One possible, though speculative explanation is that they may have felt that restricting discussion was a viable and even desirable way to protect the review process.

Proposals for affirmative action

Some researchers have low access to education, role models, and compute resources. Accordingly, there were proposals in the survey comments to help such groups directly, in order to add to current anonymity protections or compensate for their loss.

- Lower bounds on acceptance rates from underrepresented communities.
- Preferential treatment for papers from first-time authors.
- More conference tracks for topics that are commonly studied by underrepresented communities.
- Extra publicity by ACL for papers from underrepresented communities and topic areas.
- Mentoring initiatives.

To our knowledge, no related venue has ever adopted an affirmative action policy for paper acceptance except through the creation of extra tracks (such as ACL's student research workshop and tracks for underrepresented topics). Indeed, the committee saw its task as considering how best to ensure that paper acceptance did *not* depend on author identity.

Other proposals in this section are equity initiatives that deserve consideration by ACL, but this committee did not discuss them in detail, as they appear to be orthogonal to protecting anonymous review.

Proposals focused on affirming the role of peer review

Many survey comments were not really about anonymity, but expressed concern about the rise of preprint culture more generally. In particular, respondents objected to the expectation that they should take all unpublished manuscripts seriously.

• Alter ACL style templates so that non-peer-reviewed work is typographically distinguished. Citations to unpublished work would appear in gray, to signal that these publications have not been vetted. This provides pertinent information to reviewers and readers, and changes the expectations on authors who cite them as evidence (i.e., more discussion required) or as prior work (i.e., less discussion

⁶ Paraphrased comments for Q9-No (with keypoints):

https://nextcloud.ukp.informatik.tu-darmstadt.de/index.php/s/oHPqmFTLHY8c56s

required). It also creates an incentive for the cited authors to eventually submit to peer review.

This proposal appears to be technically feasible, but again the committee did not discuss it in detail, as it is orthogonal to the anonymity issue.

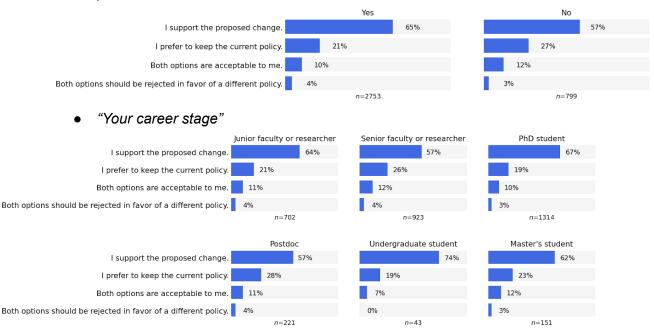
Appendix

Analysis of survey results⁷

The anonymous survey received 3479 responses in total, among which 2705 responses are from participants who are current ACL members or have been a member at some point in the past 5 years. Below we highlight some main takeaways from this survey.

Regarding the first proposed change that allows authors to freely make versions of their submitted paper available online at any time, 65% of participants support this proposed change. We break down the results based on each specific question to provide a comprehensive overview, as illustrated below:

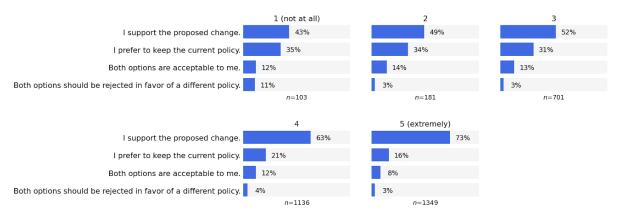
• "I am a current ACL member or have been a member at some point in the past 5 years"



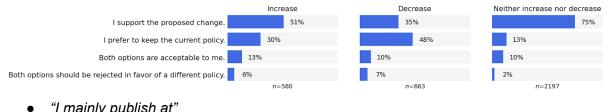
• "How strongly (1-5) do your future career goals require the visibility of your papers?

⁷ The committee has made the aggregated and paraphrased results of the free-text responses available to the community at

https://nextcloud.ukp.informatik.tu-darmstadt.de/index.php/s/B3RNXrzaXdpTDPt on November 19, 2023.

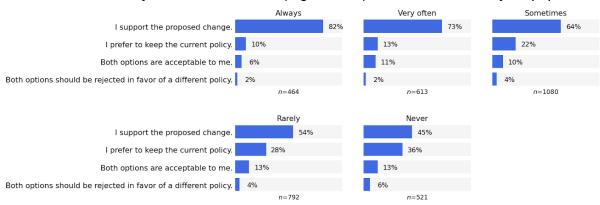


• "If reviewers were able to see de-anonymized versions of my submissions (including authors and affiliations), I think it would typically"



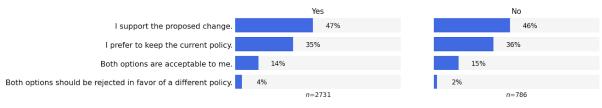
· /				
	ACL NLP venues	ACL-adjacent NLP venues	ACL affiliated workshops	ML venues
I support the proposed change.	64%	48%	51%	74%
I prefer to keep the current policy.	22%	35%	30%	15%
Both options are acceptable to me.	11%	11%	13%	9%
Both options should be rejected in favor of a different policy.	4%	6%	6%	2%
		n=903	n=751	n=1157

• "How often do you use social media (e.g., Twitter) to share or discuss your paper?"

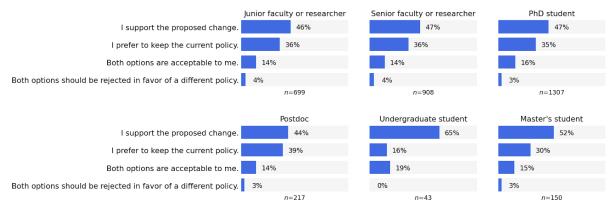


Regarding the second proposed change that allows authors to mention their preprints at any time, including on social media, similarly, we describe the results as follows, categorized by users' stance towards each specific question:

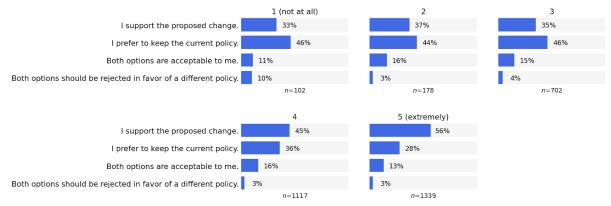
• "I am a current ACL member or have been a member at some point in the past 5 years"



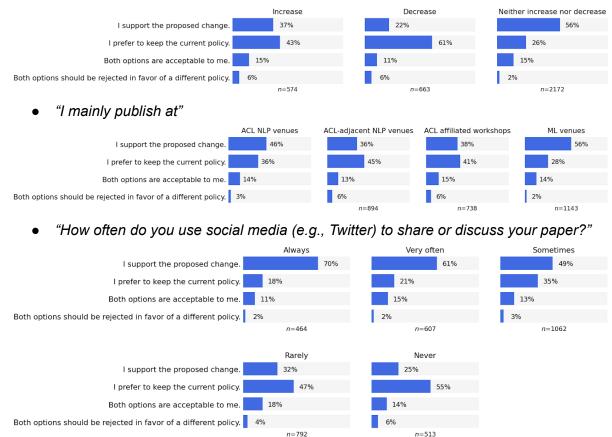
• "Your career stage"



• "How strongly (1-5) do your future career goals require the visibility of your papers?"

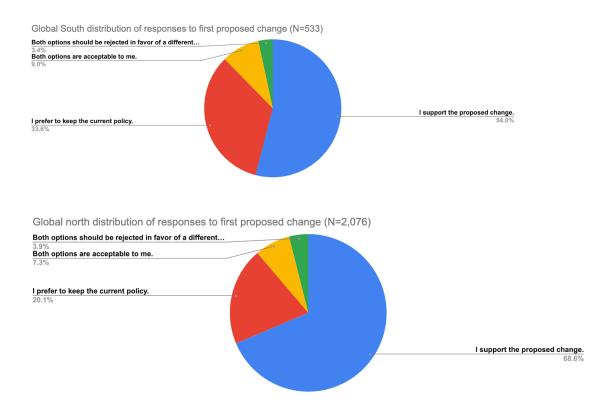


• "If reviewers were able to see de-anonymized versions of my submissions (including authors and affiliations), I think it would typically"

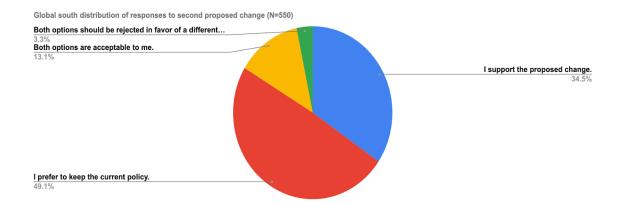


Overall, there is a 65% to 67% support rate for the proposed policy change around removing the arxiv anonymity period, among people who have filled the questionnaire and who are current ACL members or have been a member at some point in the last five years, consistent across career stages. This support holds true especially for people who tend to believe that their career might be impacted by the visibility of their papers. For the proposed policy change around allowing social media discussion policy, such percentages drop a bit to 46% to 47%, but still remain the majority option, when counting the option of "both policies work".

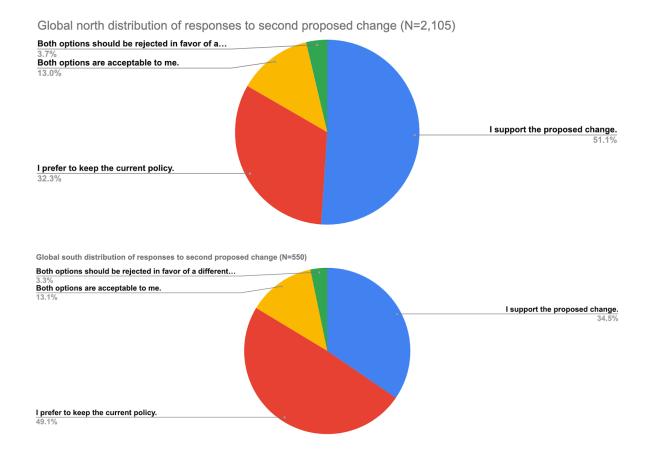
When we further separate responses to the proposed changes based on Global North and Global South⁸, the survey shows that around 68.64% participants from the Global North and 54.03% participants from the Global South support the change removing the anonymity period. We have conducted further comparison to separate US, Europe, China, and the rest of the world for the proposed two changes, and observed more nuanced findings: 59.43% participants from the rest of the world, 60% participants from EU, 55.6% participants from China, 75.3% participants from US support the removal of anonymity period.



⁸ https://en.wikipedia.org/wiki/Global_North_and_Global_South



When it comes to the social media policy, we found a support rate of 51.07% from the Global North, while it is 34.55% for the Global South. In more detail, 41.55% participants from the rest of the world, 44.46% participants from EU, 35.5% participants from China, 56.11% participants from US support the proposed social media policy, respectively.



In addition to these quantitative measures, we have also received a large number of open-end responses. Here we dive deep into three parts of these open-end responses. We used Key Point Analysis (KPA) algorithms from IBM to identify these key themes that participants mentioned in their free response. Each input comment is split into sentences, and for each key point, we report the number of input sentences matched directly to the key point, and the number of sentences matched to any key point in its subtree (using nested bullet points format below).

For the question around "assuming a "magic solution" in which author identities remain unknown to reviewers and introduce no biases during review: would you like to pre-print (some of) your papers during review and discuss them on social media",

- Our key point analysis of 1193 comments with 1692 sentences that answered "Yes" to this question resulted in 27 key points, and 86% of the comments were matched to at least one key point. The top five key points are:
 - Because early dissemination of research work is important. (495 matches) Some more detailed themes include: Research in NLP is very time sensitive; It can increase the visibility of my work; freedom of sharing scientific ideas; Self-promotion is necessary in science; discussing some ongoing research should be allowed; It's good for early career researchers.
 - It helps getting early feedback. (308 matches)
 - Anonymity still requires for the fair reviewing process. (74 matches)
 - The anonymity period during review is too long (55 matches)
 - I don't think non-anonymity is a problem (40 matches)

Overall, participants mentioned that it is crucial to pre-print their papers during review and discuss them on social media because it allows for a more transparent and open discussion within the academic community. Sharing results and gathering feedback not only improves the quality of research but also can significantly increase the visibility of one's work. This aspect is particularly important for our field since it is evolving at a rapid pace.

- Our key point analysis of 478 comments with 719 sentences that answered "No" to this question resulted in 20 key points, and 72% of the comments were matched to at least one key point. These findings imply some portion of our community remains skeptical about preprinting their papers during the review process. The top five key points are:
 - I don't discuss my papers on social media (128 matches)
 - I think peer review is crucial (70 matches)
 - I believe scientific review should be anonymous (71 matches)
 - Reviewers can be biased. (48 matches)
 - There really shouldn't be such a rush (41 matches)

For the question around *"If you think that either changing or not changing these policies would potentially harm your career, or harm you in some other way, please explain.*", our key point analysis of 828 comments with 1601 sentences resulted in 22 key points, and 71% of the comments were matched to at least one key point. The top key points are:

- Anonymity helps in preventing bias in reviewing. (291 matches)
 - Established researches would receive biased attention (233 matches)
 - Reputation is beginning to outweigh experimental methods. (93 matches)
 - I rather everything be anonymous for reviewing. (143 matches)

- strong institutions are ruining anonymity using arXiv. (54 matches)
- This is why transparent reviewing can never work. (73 matches)
- Not posting harms researchers earlier in their careers. (217 matches)
- The field changes too fast. (62 matches)
- Papers are growing way too fast these days. (35 matches)
- Publication cycles are too slow. (66 matches)
- We need to think about marginalized groups. (47 matches)
 - Biased against lesser known authors from developing countries. (30 matches)
- Meeting anonymity deadlines causes a lot of stress. (27 matches)

For the question around "Do you have any other suggestions on how ACL could balance the desire for open scientific discourse with the risk that it may contribute to reviewing bias?" Our key point analysis of 1011 comments with 1674 sentences resulted in 24 key points, and 61% of the comments were matched to at least one key point. The top five key points are:

- Open anonymous peer review. (333 matches)
 - Encourage post-publication peer-review more. (166 matches)
 - ICLR open review process is great. (116 matches)
 - Promoting non-reviewed papers is promoting bad science.
 (15 matches)
 - Provide mentorship during the review process. (13 matches)
 - Provide a server for citable anonymous preprints (94 matches)
- Reviewing bias is not the problem. (158 matches)
- Address structural failures in reviewing quality. (118 matches)
 - Please select only experienced researchers as reviewers. (25 matches)
- There is sufficient open scientific discourse. (77 matches)
- Make the review process faster end to end. (61 matches)

Some survey respondents believe that ACL's focus should be on improving the overall quality of reviewing, with the biases introduced by preprinting being a relatively minor aspect. We also observe that many respondents recommended innovations in the review and publication process, to allow public comment, ongoing academic discourse, and continual improvement of research work. Overall, these themes reflect a collective desire to improve the peer review process in a manner that supports open scientific discourse while maintaining review quality and fairness.