Research depends on rapid dissemination of results, and computer science researchers have been naturally attracted to the idea of placing their papers on the Web. Indeed, in 1998 the Computing Research Repository (CoRR) was established as a partnership between the ACM, arXiv.org, and others as an online repository for research papers in computer science [Halpern, 2000]. However, CoRR seems to have had fairly limited popularity for the first decade of its existence (Section 3), with researchers preferring to post e-prints on their individual web sites [McCallum et al., 2000a; Giles et al., 1998]. At the same time, we are seeing a budding revolution in the way that publication and peer review is conducted in computer science. Some researchers have argued for all submissions and reviews to be public [LeCun, 2009], and for four years the International Conference on Learning Representations (ICLR) has followed this model successfully, increasing from 67 submissions in 2013 up to 647 submissions in 2017. To support experimentation with new and open reviewing models, the OpenReview system [ope] was designed specifically to allowing conferences to configure a wide range of reviewing and dissemination policies and levels of openness; a good overview of the debate about reviewing models is provided by the accompanying paper [Soergel et al., 2013].

An important aspect of how research is disseminated in computer science is whether, where, and when papers are made electronically available. For many years, researchers have made papers available via individual home pages, and some researchers use or are mandated to use institutional repositories. However, public e-print services like CoRR/arXiv have the advantage of allowing researchers to receive automatic notifications when new relevant papers are uploaded (and incidentally, also of facilitating the study of the literature in aggregate, as in the current paper).

There is also the question of when papers should be made public, i.e. immediately after the authors judge them ready for public consumption, which we will call prepublication, or only after they have been accepted by a peer reviewed conference or journal. Advocates argue that prepublication can have a dramatic effect on the rate of change in a field. For example, in deep learning, it is now impossible to stay up to date without following submissions in arXiv closely. In some well-known cases, by the time an influential paper has been presented in a conference, follow-on work has already appeared, and indeed, is sometimes presented in the same conference session. However, an important disadvantage of pervasive prepublication is that it significantly complicates double-blind reviewing, as a centralized e-print repository can send alerts to many potential reviewers. Many research communities within computer science have had multi-year discussions about the tradeoffs among e-print servers, prepublication, and reviewing models, with concomitant town hall meetings at conferences, blog posts, and so on. As the comments on some of these blogs indicate, the debate among researchers can be spirited, even if it is carried out with only the most limited of evidence. Although all indications are that computer scientists are prepublishing their articles more and more, there is little information about the size of this trend or how it varies across areas of computer science.

We aim to quantify the extent to which computer scientists deposit papers in centralized e-print repositories, and whether these e-prints are preprints that are made public before or during the review process, or whether e-prints are typically posted only upon the paper’s acceptance into a peer-reviewed venue. Specifically, we measure the percentage of computer science publications that have been posted as e-prints to arXiv.org. We consider all papers in the past decade that have been published in 63 of the most selective conferences across computer science, and matched their metadata to the arXiv preprint server. Our main findings are:
• Usage of arXiv.org has risen dramatically among the most selective conferences in computer science. In 2017, fully **23% of papers** had e-prints on arXiv.org, compared to only 1% of papers ten years ago.

• Areas of computer science vary widely in e-print prevalence. In theoretical computer science and machine learning, over 60% of published papers have arXiv e-prints. In other areas, the arXiv usage is essentially zero. In most areas, arXiv usage is rising.

• Many researchers use arXiv for posting preprints. Of the 2017 published papers with arXiv e-prints, **56% were preprints** that were posted either before submission or while the review process was ongoing.

Overall, these results suggest that we are reaching a tipping point in the popularity of centralized e-print repositories. This has implications for both researchers and computing practitioners. For practitioners, following arXiv feeds has now become an important tool for tracking recent literature in many areas of computer science. For researchers, these results highlight the urgency of having an explicit discussion about how prepublication should affect community norms for dissemination, reviewing, and publication (Section 4). We may well have already reached a point where preprints are here to stay.

**Terminology: e-prints, preprints, and all that.** We use the term *e-print* to indicate a version of a research article that is publicly placed online by the authors directly. This includes e-prints in centralized repositories like the arXiv, in repositories of individual institutions, or on researchers’ individual or group Web pages. A **centralized e-print repository** is an internet service that stores and distributes the e-prints of many different research institutions and journals, such as arXiv.org, bioRxiv, HAL, and so on. A **preprint**, for us, is an e-print that is made public before the paper has been accepted into a peer-reviewed venue; of course, some preprints never appear in a peer-reviewed venue. Although the practice of e-print repositories has precursors in processes for exchanging paper manuscripts [Kling 2005], in this analysis we are only concerned with preprints that appear electronically. So all preprints are e-prints, but not vice versa. By **prepublication** we mean the practice of using preprints to disseminate research.

1 **Context**

Researchers in computer science are in the midst of a lively, multi-year debate about reviewing and publication models. Unlike other sciences, in computer science, the primary focus of publishing has been in refereed conferences, which typically have acceptance rates of between 10%-30%. This has been perceived to be a faster publication mechanism than journals, but more recently researchers have expressed frustration with the delay in dissemination that can result when papers are rejected multiple times from conferences, waiting several months each time for the next conference deadline. This “conference ping-pong” can affect even groundbreaking papers [LeCun 2009], indeed, perhaps such papers are especially susceptible, as they are by nature more difficult for peer reviewers to understand and appreciate. Concerns about reviewing and publication models have led to discussions across areas of computer science, workshop such as one on publication models at the NIPS conference in 2009 and one on peer reviewing and publication models at ICML 2013 [LeCun 2009]. It has also led to the foundation of hybrid venues which have journal-style rolling deadlines but include conference publication, such as the Proceedings of the VLDB Endowment, the Transactions of the Association of Computational Linguistics, and the journal track of the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases.

Posting preprints to centralized e-print repositories provides a way to decouple dissemination from peer review, allowing papers at risk of conference ping-pong the opportunity to be read and noticed more quickly. It also provides advantages to researchers in smaller groups and less developed countries, allowing them fast access to the most cutting-edge literature and also the ability to disseminate their own research results quickly. Indeed, Ginsparg notes that twenty years after the creation of arXiv.org: “I still receive messages reporting that the system provides to researchers, these results highlight the urgency of having an explicit discussion about how prepublication should affect community norms for dissemination, reviewing, and publication (Section 4). We may well have already reached a point where preprints are here to stay.

Leading conferences in computer science have contradictory policies regarding the use of centralized e-print repositories and preprints. In theoretical computer science, STOC and FOCS have explicitly encouraged authors to make full versions of their paper available as e-prints. Notably, these venues do not use double-blind review. In machine learning, NIPS and ICML have allowed authors to place preprints online for several years. On the other side, AAAI 2017 and SIGIR 2017 discouraged authors from placing preprints online during the review process but for AAAI, many authors appear to have been unaware of this request (Table 2). ACL 2017 required that authors declare at the time of submission whether authors had placed a preprint on arXiv papers with undisclosed arXiv preprints were rejected without review. An interesting compromise has been used by PLDI which allows submitted

Sources:

https://sites.google.com/site/workshoponpeerreviewing/

https://pldi18.sigplan.org/track/pldi-2018-papers#FAQ-on-Double-Blind-Reviewing

Sources:

http://focs17.simons.berkeley.edu/cfp.htm

http://acm-stoc.org/stoc2017/callforpapers.html

http://www.aaai.org/Conferences/AAAI/2017/aaai17call.php

http://sigir.org/sigir2017/submit/call-for-full-papers/

http://acl2017.org/calls/papers/#multiple-submission-policy

http://www.aaai.org/Conferences/AAAI/2017/aaai17call.php

http://focs17.simons.berkeley.edu/cfp.htm
papers to have arXiv e-prints as long as they were posted to arXiv well before the conference submission deadline, in order to avoid an arXiv announcement with a large number of papers just after the conference deadline attracting the notice of potential reviewers. Similarly, PLDI discourages publicizing e-prints to social media and mailing lists during the review process.

Therefore, a study on the usage of centralized e-prints and preprints in computer science has several policy objectives. First, this study aims to provide an opportunity for researchers and research communities to reflect on their own policies and norms for centralized e-print repositories and preprints in light of the experience of other areas. For example, areas with less of a tradition of the use of centralized e-print repositories might be inspired (or perhaps repelled!) by areas that do. Second, this study aims to provide evidence to inform the current discussion of double-blind reviewing systems to better accommodate prepublication models. Measures of prepublication can help to inform the debate on whether to disallow preprints at double-blind conferences, whether to discontinue double-blind reviewing to better accommodate preprints, or whether and how to design a hybrid system that incorporates both. Finally, this study aims to provide insight into future prospects of open reviewing models across computer science. Open review requires preprints by definition, so if computer science researchers are increasingly coming to accept prepublication, this bodes well for the possibility of current experiments in open review to gain traction in the community.

Outside of computer science, Larivière et al. [2014] have previously studied arXiv usage across all sciences, ranging from mathematics and physics to chemistry and biology. They follow a similar methodology to ours, matching journal publications from Web of Science to e-prints on the arXiv. While they do consider computer science, they only consider papers in computer science journals rather than refereed conferences, and hence does not consider perhaps the most important route for research dissemination in computer science. Finally, this study stops in 2011; as we will see, computer scientists’ usage of arXiv has changed dramatically in the last six years. They find that the percentage of journal papers on arXiv varies substantially across disciplines, which is consistent with the intra-disciplinary results for computer science that we report here.

2 Methods

The simplest method for assessing the increase in e-print usage is to examine the publicly available statistics from arXiv.org, which indicate that the number of arXiv submissions is increasing across subject areas of computer science. But this analysis alone cannot indicate whether the number of arXiv submissions is increasing because the percentage of researchers posting e-prints is growing, or simply due to the overall growth in the number of computer science researchers. Furthermore, raw submission counts cannot be used to meaningfully compare areas, because different areas of computer science have different sizes. Finally, submission counts cannot on their own tell us whether researchers are using arXiv for prepublication or whether they post to arXiv after the review process is complete. Therefore, our method is instead to collect the list of all published papers from top conferences across computer science, and match the published paper to a corresponding arXiv submission. This allows us to measure what percentage of papers are submitted as arXiv e-prints.

We focus on papers published in the most selective conferences in computer science, both as a way of narrowing the scope of the study, and also as a way to assess practices among leaders in the field. A list of such conferences has been compiled by CSRankings [Berger, 2017], a recent effort to create a metrics-based ranking of worldwide computer science research departments. CSRankings has collected a list of research areas in computer science, roughly corresponding to ACM SIGs, but filtered to ensure that each area has a sufficiently broad research community. More details about the selection of the CSRankings list is available at http://csrankings.org/faq.html. We retrieved the list in from the CSRankings GitHub repository in December 2016. We made two changes to the list from CSRankings: first, we excluded the bioinformatics area, as much prepublication in that area seems to occur on bioRxiv (http://biorxiv.org/), which is not included in this study, rather than arXiv.org. Second, we split the KDD conference into a separate ”data mining” area apart from ICML and NIPS, as the two areas had different prepublication behaviour. This resulted in a list of 63 conferences, spanning 25 areas of computer science, shown in Table 1.

Proceedings of the conferences ISMB, SIGGRAPH, SIGGRAPH Asia, IEEE VIS, and VR are published as special issues of journals, so we include in our study the papers from the relevant issues of the associated journals. Short papers in ASE and ICSE are omitted. Code to handle this processing was provided by CSRankings. We collected the list of published papers from each of the conferences from 2007-2017 using DBLP (http://dblp.org/). The venue names from DBLP were normalized using rules provided by CSRankings.org. To collect the list of arXiv e-prints, we retrieved the metadata of all papers from the cs and stat subjects, a total of 177,129 e-prints. The stat subject was included because many machine learning papers on arXiv are posted to the stat.ML category. For
| Area                              | Conferences                                     |
|----------------------------------|------------------------------------------------|
| Algorithms and complexity        | STOC, SODA, FOCS                                |
| Artificial intelligence          | AAAI, IJCAI                                     |
| Computer architectures           | MICRO, ISCA, ASPLOS                             |
| Cryptography                     | EUROCRYPT, CRYPTO                               |
| Data mining                      | KDD                                            |
| Databases                        | PVLDB, SIGMOD                                   |
| Design automation                | DAC, ICCAD                                      |
| Embedding systems                | RTSS, RTAS, EMSOFT                              |
| Graphics                         | SIGGRAPH (+Asia)                                |
| HCI                              | UbiComp, CHI, UIST                              |
| High performance computing       | SC, ICS, HPDC                                   |
| Information retrieval            | WWW, SIGIR                                      |
| Logic and verification           | CAV, LICS                                       |
| Machine learning                 | NIPS, ICML                                      |
| Measurement                      | SIGMETRICS, IMC                                 |
| Mobile computing                 | MobiSys, MobiCom, SenSys                        |
| NLP                              | ACL, HLT-NAACL, EMNLP                           |
| Networking                       | NSDI, INFOCOM, SIGCOMM                          |
| Operating systems                | USENIX, SOSP/OSDI, EuroSys                      |
| Programming languages            | POPL, PLDI                                      |
| Robotics                         | RSS, ICRA, IROS                                 |
| Security                         | CCS, IEEE S&P, USENIX Security                 |
| Software engineering             | ASE, ICSE, FSE                                  |
| Vision                           | ECCV, CVPR, ICCV                                |
| Visualization                    | IEEE VIS + VR                                   |

Table 1: Conferences included in this study, listed by research area.
arXiv, the OAI2 interface does not provide individual authors separately, so we heuristically separated author names by commas and the word “and”.

For each published paper in the conferences considered, we attempt to determine whether there is a submission on arXiv that matches the paper metadata from DBLP. Citation matching has been an active research area for many years [Lawrence et al., 1999; McCallum et al., 2000b], but we use a simple approach, both because our metadata is likely to be more accurate than citation data, and also because we want a conservative measure. Therefore we use the following record linkage heuristic. We consider that a citation in DBLP matches an e-print on the arXiv when the titles are exactly identical and at least one token is shared between the author fields of the two records. Overall there are 82427 papers in total reported on DBLP from the 63 conferences for the years considered in this study. Of these, according to our matching heuristic, 7313 of these papers have arXiv e-prints.

We estimate the effectiveness of our record linkage heuristic via the standard measures of pairwise precision and recall. First, for precision, we randomly sampled 25 DBLP papers for which our record linkage heuristic did find a match. Of the 25 matched papers, we compared the arXiv e-prints and DBLP papers manually to check if they presented substantially the same major results, subject to minor expansions such as inclusion of proofs and so on. We found that all of the 25 matches from the heuristic were indeed correct, so that the precision of the heuristic is as hoped nearly 100%. Second, to estimate recall, for each of the papers in DBLP that were not matched by our heuristic, we found the closest arXiv e-print measured by the average of the Jaccard similarities of the title and author fields across the two records. In 74644 cases, the closest arXiv e-print had Jaccard similarity of less than 0.5; we assume that all such arXiv e-prints do not match the corresponding DBLP record. For the remaining 470 papers in DBLP, we randomly sampled 25 for manual comparison, and found that 23 of the 25 closest arXiv e-prints were also true matches. This yields an estimate of the recall of our heuristic as 94%, which is high enough not to have a serious impact on our subsequent analysis. Although it would be possible to relax the heuristic a bit to increase the recall while suffering only a slight drop in precision, we choose not to do this for the sake of simplicity.

Finally we collect notification dates for conferences, that is, the date when peer review was completed and the results communicated to authors. Notification dates were collected manually from the conference web sites on 20 September 2017. PLVDB is excluded from this analysis, as it has a rolling deadline every month. SIGMOD 2017 had an opportunity for revision during the review process; the date of the final accept/reject decision was used as the notification deadline. In some cases, the date of notification was unavailable from a web search:

- For ICML 2017, the notification date was taken from the date of the author notification email that the first author received from his submission to the conference.
- For SODA 2017, the notification deadline was taken to be 1 October 2016 as an approximation based on a statement made at [https://www.siam.org/meetings/dal17/proceedings.php](https://www.siam.org/meetings/dal17/proceedings.php) "SIAM will provide final paper submission instructions to authors of accepted papers in early October 2016".
- For ICRA 2017, the notification date was unavailable online so the camera-ready date was used instead.

All code and data required to reproduce this analysis is freely available at [http://groups.inf.ed.ac.uk/cup/csarxiv/](http://groups.inf.ed.ac.uk/cup/csarxiv/) with figures generated using Jupyter Notebooks ([http://jupyter.org/](http://jupyter.org/)).

2.1 Threats to Validity

There are many types of e-print servers that this study does not attempt to address, e.g., other centralized e-print servers than arXiv, institutional e-print repositories, and dissemination via authors’ web sites. Perhaps the most important centralized e-print repositories in computer science that are not considered are bioRxiv (bioRxiv.org/), HAL ([https://hal.archives-ouvertes.fr/](https://hal.archives-ouvertes.fr/)), the Electronic Colloquium on Computational Complexity ([http://www.eccc.uni-trier.de/](http://www.eccc.uni-trier.de/)), and the Cryptology ePrint archive ([http://eprint.iacr.org/](http://eprint.iacr.org/)). In this study, we focus on arXiv because of its popularity, as we are unaware of another repository that is as popular in computer science, and because ACM CoRR is hosted via arXiv.org. However, it is therefore important to note that these data necessarily provide an underestimate of e-print usage in computer science. Furthermore, our results are also an underestimate because our record linkage procedure is intentionally conservative.

It is only possible to obtain metadata for papers published in conferences rather than all submissions, because for the majority of conferences, the review process is confidential. So it is not possible for us to measure whether e-print usage among accepted papers is different from rejected papers, e.g., because of differences at an aggregate level in the population of authors.

At the time of writing, around a third of the research conferences considered in this study have not yet uploaded publication data for 2017 to DBLP. For these conferences, we have included pre-2017 data in Figure 1 but not in the other figures. We will update the e-print of this paper as that information becomes available.
Figure 1: Proportion of papers in 63 top conferences in computer science that have e-prints on arXiv.org, by area.

| Venue          | Papers | e-prints | Preprints |
|----------------|--------|----------|-----------|
|                | Count  | (%)      | Count     | (%)      |
| ICML           | 427    | 278      | 65%       | 204      | 48%       |
| STOC           | 98     | 63       | 64%       | 49       | 50%       |
| SODA           | 182    | 103      | 57%       | 81       | 45%       |
| ACL            | 290    | 133      | 46%       | 26       | 9%        |
| EMNLP          | 303    | 123      | 41%       | 45       | 15%       |
| LICS           | 85     | 33       | 39%       | 22       | 26%       |
| CAV            | 61     | 21       | 34%       | 10       | 16%       |
| POPL           | 64     | 19       | 30%       | 10       | 16%       |
| WWW            | 158    | 44       | 28%       | 24       | 15%       |
| KDD            | 208    | 53       | 25%       | 35       | 17%       |
| AAAI           | 661    | 165      | 25%       | 82       | 12%       |
| SIGIR          | 77     | 16       | 21%       | 0        | 0%        |
| IJCAI          | 653    | 119      | 18%       | 51       | 8%        |
| ICRA           | 771    | 117      | 15%       | 84       | 11%       |
| SIGMOD         | 107    | 15       | 14%       | 8        | 7%        |
| FSE            | 90     | 10       | 11%       | 0        | 0%        |
| SIGGRAPH (+Asia) | 163   | 15      | 9%        | 0        | 0%        |

Table 2: Proportion of e-prints and preprints of number of total accepted papers in 2017. The conferences shown are those that had at least 10 e-prints on arXiv.org in 2017.
3 Results

We show the percentage of published papers per year that have arXiv e-prints in Figure 1. The “Overall” line is a microaverage across areas, that is, the total number of e-prints across all conferences divided by the total number of publications. We see that the total percentage of e-prints has risen dramatically over the past decade, increasing from under 1% in 2007 to 23% in 2017. It can also be seen that there is large variation in e-print percentage across different areas. Machine learning and algorithms/complexity have the highest percentage of e-prints, while NLP and computer vision have seen a sharp increase since 2014. Logic and verification is the final area whose e-print percentage is much above the microaverage; although in 2007, it had the highest e-print rate across computer science, since then usage has grown more slowly than other areas. Most other areas are below the overall average, but a large number of areas have increased over the past two or three years.

In addition to examining variation across areas of computer science, we also examine whether there is variation in arXiv usage within the conferences in a research area. As Figure 3 shows, the variation in e-print percentage within an area seems to be much less than the variation across areas.

The previous analysis has measured percentage of e-prints, that is, whether published papers are on arXiv at all, but it does not measure whether those papers are preprints, that is, whether they were posted publicly before they were accepted into the conference. To measure this, we collected the list of conference submission deadlines and notification dates for all 17 conferences which had at least 10 e-prints on arXiv in 2017. These conferences are listed in Table 2. We also collected the notification date of each conference, that is, the date at which authors were informed of the review outcome, as described in the previous section. This allows us to measure for each conference, what percentage of the published papers were preprints.

The results are shown in Table 2. This table shows the number of papers published at each venue, along with what percentage appear as e-prints, and what percentage appear as preprints, i.e., the date of the arXiv submission is before the conference notification date. Overall 56% of e-prints on arXiv were also preprints, a rate which seems to approximately hold across conferences, with a few exceptions. The three conferences with the most e-prints (ICML, STOC, and SODA) have a larger percentage of preprints, with around 50% of published papers being preprints. In the other direction, ACL and SIGIR have much lower rates of preprints than one would expect given their percentages of e-prints. This indicates that even among communities in which arXiv e-prints are widely accepted, there is still substantial disagreement about preprint norms.
Figure 3: Proportion of e-prints for each conference in 2017, arranged by area. This shows the variation in e-print prevalence within each area. Some conferences considered in this study are missing because they have not yet uploaded publication data to DBLP.
4 Conclusions

Overall, these data seem to indicate that there is openness for change across computer science in how research results are disseminated. Prepublication and centralized e-print repositories have reached a level of popularity in computer science that it seems fair to say that they are here to stay, but the fact that this trend has happened relatively recently indicates that communities may still be willing to experiment. Researchers and practitioners need to think about how to respond in order to maximize the benefits and minimize the down-sides of this model. We suggest different implications for different communities that produce, read, and apply research in computer science:

- **Authors** should consider how centralized e-print repositories fit into their dissemination plans. Considering the growing popularity of arXiv/CoRR, and the advantages of centralized e-print repositories compared to web pages of individual research groups, we would argue that all research papers in computer science should have public e-prints on arXiv/CoRR, unless a more specialized repository is already popular in the area.

- **Reviewers, journal editors, and conference chairs** for venues that use double-blind reviewing need to be aware of the increasing prevalence of preprints, and adjust reviewing guidelines and norms accordingly. There have always been ways that reviewers could become deblinded, learning the author identities of a double-blind submission by seeing previous technical reports, workshop presentations, and invited lectures by the authors on similar topics. But centralized e-print repositories increase the risk of reviewer deblinding, as repositories send alerts to large numbers of researchers when new papers are added. Reviewing norms for double-blind venues should be adjusted to reduce the negative impact of deblinding. This includes reviewers refraining where possible from Web searches that could deblind the authors, reviewers notifying conference chairs when they have become deblinded, and conference chairs being prepared to downweight reviewer recommendations or reassign reviewers in such cases.

- **Research communities** need to have a long-term discussion about whether or not to encourage preprints. Although we argue strongly for centralized e-prints, whether those should be preprints is a more difficult question, because of the interaction with double-blind review. On the one hand, double-blind review has been demonstrated to benefit researchers from underrepresented communities, while on the other hand, centralized e-print repositories and preprints also benefit such researchers by increasing the flow of information both to and from unfairly marginalized communities. We are hopeful that the changes to reviewing norms described above may help to reconcile potential conflicts between preprints and double-blind review — indeed, even ICLR, which has innovated open review among large conferences, is moving to double blind in 2018.

- **Practitioners** in computer science should be aware that centralized e-print repositories are now becoming a more important vehicle for rapid dissemination across computer science, and should consider subscribing to email alerts from the repositories that are appropriate to their area.

- **Builders of tools** to support new reviewing, dissemination, and publication models for computer science should be encouraged to redouble their efforts by the research community’s manifest willingness to consider new models of publication. In particular, this may be a good moment to reconsider the introduction of arXiv overlay journals for computer science, which have been proposed earlier by several authors [Halpern 2000, LeCun 2009].

To fully understand the tradeoffs involved in centralized e-print repositories, prepublication, and reviewing models, more information is needed than is available from these data. In particular, we have little information about the detailed workings of double-blind reviewing processes across computer science, e.g., in areas where there is a high rate of pre-prints, how often does this cause author identities to be revealed in double-blind processes? Some researchers have suggested anonymous preprints as a way of reconciling preprint with double-blind review[9], but this could cause issues with papers that are repeatedly submitted unsuccessfully[10], how often are rejected papers resubmitted, and where? On the more general subject of learning more about the double-blind process, a fascinating recent study is by Le Goues et al. [2017], who show that most reviewers are unable to guess author identities in double blind conference at three conferences in programming languages and software engineering; it would be interesting to see if this type of result can be replicated at conferences with higher rates of preprints. Because the reviewing process of most conferences and journals is confidential, it can be difficult to gather data, but we hope that such studies have potential to add light to the existing heat of discussions of reviewing models in the research community.

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[9] https://chairs-blog.acl2017.org/2017/03/02/arxiv-and-double-blind-reviewing-revisited/
[10] http://www.theexclusive.org/2017/09/arxiv-double-blind.html
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