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Special Articles: Commentary

Concerns with the Winnower and Laura and John Arnold Foundation Reproducibility Essay Contest

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Abstract

On April 26, 2016, an announcement was made for an essay contest to be published in and by *The Winnower* (<https://thewinnower.com>), a low-cost open access journal. The contest, which was financially sponsored by the Laura and John Arnold Foundation (LJAF; <http://www.arnoldfoundation.org>), aimed to find an answer to the question “How do we ensure that research is reproducible?” In a bid to tackle the reproducibility crisis in science, the contest set out its objectives, as well as the rules for contestants, including a deadline for submission, and a range of word limits (750-1500). As for the submission to a journal, it was expected that all contestants would abide by the rules to be valid contestants. After a delay in releasing the results, an examination of the entries revealed that 12/21 of the essays did not abide by the contestant’s rules, and thus, to be fair, should have been disqualified, as equally as a submitted paper that does not abide by the rules of submission to a journal is equally rejected, or retracted, if the breach of rules is known post-publication. A request was sent to the LJAF and *The Winnower* CEO, Joshua (Josh) Nicholson, for a more formal explanation and greater transparency. The acceptance of the winning essays, each of which received a \$US 500 cash prize, was summarized by a single sentence. This case study examines how *The Winnower* and the LJAF mismanaged that contest, how the winners remained winners despite breaking the basic rules of the contest, and how no public transparency was offered with respect to contest mishandling, the make-up of the panel of judges, or the qualifications of these judges. Reproducibility begins with trust, accountability and openness, qualities that were not displayed, in this case, by the LJAF and *The Winnower*.

Keywords: accountability; fake and unqualified judges; false statements; misleading; predatory

An Essay Contest: An Excellent Initiative to Tackle the Reproducibility Crisis

It is often said that science is in a reproducibility crisis, and there is much finger-pointing as to the source of this problem. The issue of reproducibility in science is one of the core failures of

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science. Embedded in roots related to poor or incomplete methodology, failed peer review or false incentives, among other factors, science is in search of the reasons for why published research cannot be reproduced, and how such limitations can be overcome. The debate among scientists, academics and industry is in a dynamic state, and there exists quite a bit of literature on this topic. Despite this, spurious solutions have not been able to curb this problem, and a lingering reproducibility crisis would harm science's image in the public's eyes.

That is why, when there is a concerted effort to tackle the issue of reproducibility, it is broadly welcomed by the scientific community, because it allows for a centralized platform for discussion. This was most likely (hopefully) the emotion that most essay participants felt when they learned of an essay contest that was to be published in and by *The Winnower* (<https://thewinnower.com>), financially sponsored by the Laura and John Arnold Foundation (LJAF; <http://www.arnoldfoundation.org>). Announced on April 26, 2016 through Facebook and Twitter, the essay first caught my eye when I saw Leonid Schneider, a self-made science journalist and critic, submit the text of his blog post in a reduced form as an essay to this contest. Personally very interested in many aspects related to science and science publishing, including the issue of reproducibility – or the lack thereof – in science, I felt interested in the contest, also because there are not many essay-writing contests in science, so I felt that this would be a personal challenge and positive academic experience. Also, knowledge that the US\$ 25 open access (OA) fee would be waived for contestants was a welcome and attractive option for me, being retired and not having any funding for publishing. Most importantly, I felt that the solutions that I had seen that were being sought by the academic community to solve the reproducibility crisis were showing mild or no success simply because two core values were not being treated appropriately, namely accountability and transparency.

The essay contest had three simple rules: a) discuss reproducibility with a view to finding a solution to the crisis; b) submit the paper by the deadline, June 15, 2016; c) write within word limits (750-1500 words). By the time I submitted, just a few days before the contest was meant to close, several contestants had already submitted and published their essays. Some of these were really good intellectual contributions and I felt humbled and honored to be among this group of such excellent intellectuals. Most importantly, I felt grateful that I was given this opportunity to submit to *The Winnower*, a relatively new OA journal that launched in 2014. The results were expected to be announced on July 15, a month after the contest closed. *The Winnower*, a peer reviewed journal, conducted no peer review on my essay, and it is unclear if peer review was conducted on any of the other essays. There was not even a single editorial comment, or feedback by any of the judges. *The Winnower* CEO, Joshua (Josh) Nicholson, did however offer assistance at uploading my file to his journal's web-site.

Contest Mismanagement Warning Signs

When the competition closing date of July 15 came and went, I decided to contact Mr. Nicholson, who indicated that the results of the contest were slightly delayed, but that these would be released in August, a month late. In that email, Mr. Nicholson stated "Judges names will be announced so long as all judges are okay with it." On September 20, I sent a simple email reminder to the CEO, requesting if there was any formal explanation for the delay in announcing the winners. My email request was met with silence. About a month later, and just under three months after the official close of the contest, I contacted Mr. Nicholson once more by email and LJAF through their online contact form, concerned with this silence and lack of an explanation. No notice appeared on the web-site about this delay. On October 13, I received an email from Mr. Nicholson indicating that the results had in fact been announced, and that the email to me must have somehow escaped: "Apologies for the delay, your email must have slipped through. There is a blog announcing the winners on *The Winnower* for over a month now. We also announced it via Twitter and email. I am sorry that you missed these announcements." The link, dated August 15, 2016, that was provided was: <https://thewinnower.com/posts/contest-winners-how-the-improve-reproducibility>

Note very carefully how the comments section has been actively disabled, not allowing the contestants or any member of the public to comment, or possibly, more accurately, not allowing us to be critical of the essay contest and its mismanagement and mishandling.

The page indicated that "The Laura and John Arnold foundation has been integral in trying

to answer this by funding organizations like the Center of Open Science and others and we're happy to have partnered with them to hold the second essay competition on the Winnower, which we've just concluded judging. We had many great entries (read them here) from around the world and are happy that this is not just a competition but a resource that will continue to be useful now and in the future as we tackle improving reproducibility in the sciences. So without further ado, we give the winners of the contest: Anne Jorstad & Konrad Hinsén."

Concerned by several issues, I decided to issue a more formal complaint, and copied the other contestants on my email. My main concerns were:

a) Unlike what Mr. Nicholson had asserted, no email notice had been sent (at least not to me).

b) There was little, or no, transparency about the decision process.

c) There was little, or no, transparency about the judges, or their qualifications. When the contest was first announced, the following had been stated "The essay competition will run until June 15th and will be judged by a committee of scientists, librarians, members of industry, and students based on the following criteria." Those criteria were never indicated before, during or after the contest. It was important to learn the identities and qualifications of the judges, because the published reports for the winning essays were as follows: "I think it has the potential for greatest impact, and it is focusing on the next generation" for the Jorstad essay, and "Interesting and informed, this essay very clearly follows one idea from definitions to implications" for the Hinsén essay. Over-simplistic statements that under-appraised the efforts of all other contestants, and that gave the impression of a rushed job required a greater and fully transparent explanation.

d) From a total of 21 submitted essays, five of the contestants exceeded the word count (incl. references) (including the winning essay by Anne Jorstad), two were under the limit, while four essays were submitted after the submission deadline (Table 1). In essence, when also considering that four essays were not archived, i.e., the submission process was not formally completed, 12 (possibly 16, if one considers references as part of the word count) of the essays should have been disqualified based on technical criteria, as in a journal. More alarmingly, only five essays conformed to essay rules and should strictly have been the only valid entries. Also of concern, the reason why these 12 essays were allowed to be approved and published, despite these infractions of essay rules, was never explained, neither by Mr. Nicholson, *The Winnower*, or the LJAF. As occurs in science publishing, and a core aspect of the reproducibility movement, one would surely expect rule-infracting submissions to be retracted.

e) General mishandling, mismanagement, poor communication, lack of accountability, twisted rules, and no, or little, transparency.

The requests for an explanation and for these details were never provided. However, some responses were provided by Mr. Nicholson, the LJAF and select contestants, as detailed next. All parties contacted were explicitly indicated that their responses could be used in a paper on this case.

Formal Responses

Mr. Nicholson was the first to respond: "I am sorry your requests will not be granted. The judging was performed according to the guidelines and the winners were selected fairly. I will consider this now resolved and appreciate it if you did as well." Zoltan Boka, a contestant, responded next "For what it's worth this is the first time I hear of any outcomes in this contest. I took the approach that a publication is a publication and left it at that. May be healthier in the long term." This was closely followed by a similar statement by Olivia Guest, also a contestant, and one of the more severe cases of exceeding the word limits, who claimed not to have been contacted about the results of the contest: "I received no email about the results and was also wondering why the word limits were not respected. I haven't read the full thread of emails here yet so sorry if I'm repeating what others have said. It was all a little confusing to me and I only found out when somebody else linked me to the results." Between the Guest and Boka emails, Mr. Nicholson sent me this email: "You repeated harassment is why I will not make the names of the judges public. I do not wish to expose them to such harassment. I will no longer be corresponding with you, please stop emailing me." Two emails from one of the winners, Jorstad, stated, among other things, the following "As one of the winners, I would also be very happy to be able to see the full content of the reviews, and I was surprised that I was not able to see the review of my own essay... I was told

by The Winnower to not worry about the references in the word count... I also agree that all the contestants should have been contacted via email when the winners were decided. I assume The Winnower has learned its lesson on this matter... I agree that we were probably guinea pigs for this competition, but I see absolutely no problem with this, and assumed as much when I submitted my essay.” Schneider, a prominent science watchdog (Teixeira da Silva, 2016a), noted: “there seems to be a misunderstanding. I am not involved into this complaint, in fact I think as a non-academic and free journalist I shouldn't have participated in this contest in the first place. That was obviously a mistake from my side, I only ask that my essay is not to be used for any commercial purposes or advertising.” All of these communications took place on October 21, 2016.

On October 22, Matthew MacLennan stated: “I too received no official notification as to the outcome of the contest (until this morning in this thread) and would have liked to. I was glad to participate and take some time to put something together. Not being notified made me feel undervalued... Looking forward to some policy transparency for a good resolution to this.” Finally, on October 26, 2016, Renice Armelin, the Office Manager of the LJAF, stated the following: “the Laura and John Arnold Foundation (“LJAF”) is not in a position to confirm the judges’ comments because LJAF was not at all involved in determining the rules and eligibility requirements for the competition, selecting the judges, or selecting the competition finalists. The funds LJAF provided to The Winnower were solely for operational support.”

These communications form an integral historical record of this essay contest.

It is not clear how much funding was provided to *The Winnower*. No information can be found on the LJAF grants page: <http://www.arnoldfoundation.org/?s=The+Winnower>

Almost one year after my emails expressing these concerns, these papers all remain intact, and the public remains misinformed about these publishing ethics infractions, with direct protection by Mr. Nicholson, *The Winnower*, and the LJAF. No papers that infringed upon the publishing norms associated with this contest have been retracted, nor has any editorial expression of concern been published. *The Winnower* is not listed as a Committee on Publication Ethics (COPE) member.

The Lessons Learned and What Needs to be Done

The Winnower is a relatively recent OA publishing project. In November 2014, I received an enthusiastic invitation from Mr. Nicholson “We are a new science publishing platform that aims to fix this (price) amongst many other problems with science publishing.” *The Winnower* was indeed an attractive and inexpensive OA option that offered a refreshing perspective to what seemed to be an endless sea of predatory, misleading OA publishers and journals that continue to plague the OA movement. So, when the essay contest arose to tackle the reproducibility crisis, publishing in *The Winnower* seemed to be the right choice, and a perfect opportunity to express some of my own ideas about why there may be a crisis in reproducibility. I am of the belief that some of the actions, attitudes and mismanagement that characterized this essay contest are also at the heart of the reproducibility crisis, including lack of accountability by publishing leadership, an attempt to stifle criticism when criticism is warranted, “secrecy” about the identity of judges (*aka* peers), especially when their verdict seems excessively simple or unprofessional, although many may claim that the same single-blind peer review operates in traditional journals. However, most likely the same individuals who claim this might then fail to offer a suitable explanation as to why breaking the rules of the contest would constitute a position compatible with science publishing.

I believe that the following needs to be done to regain trust and respect in *The Winnower* and LJAF:

- 1) A clear explanation as to why this contest was fair and valid, is required, especially considering that most contestants were in violation of the written rules, i.e., word limits and submission dates (Table 1). In one striking case, the word count of the essay of one of the winners, Konrad Hinsén, is registered as being 1769 words in the PDF file downloaded on June 15, 2016, while the word count of the html text as copied on October 26, 2016 registers 1815 words. Why is there this stark discrepancy in word count, has this author been allowed to make edits to his essay, and if so, why have others not been offered the same opportunity? Why was Swartz allowed to publish an essay with 11,155 words when others were limited to an essay of 1500 words? Why were other contestants not afforded the same freedom and length? No doubt that many of us could have benefitted from a greater word limit to express ideas in greater depth.

Table 1. List of essays that have broken the rules of the contest published in *The Winnower*

Author*	Word count ¹			Submissions		Should essay be disqualified? ²
	With references	Without references	Word count rule infraction?	Submission date	Rule infraction?	
Barratt	1142	1033	No	27/6/2016	Yes	Yes
Boka	1091	968	No	5/25/2016	No	No
Brand	1540	1078	Possibly [†]	13/6/2016	No	Possibly [†]
Charlton	1050 [‡]	1050	No	6/5/2016	No	No
de Grijs	1919	1567	Yes (count exceeded)	5/27/2016	No	Yes
Emmerich	1175 [‡]	1175	No	14/6/2016	No	Yes ⁵
Guest	2956	1888	Yes (count exceeded)	13/6/2016	No	Yes
Hinsen ³	1769/1815 ⁴	1662	Yes (count exceeded)	6/6/2016	No	Yes
Hobson	1513	1360	Possibly [†]	2/6/2016	No	Possibly [†]
Jorstad ³	1542	1432	Possibly [†]	15/6/2016	No	Possibly [†]
MacLennan	1434 [‡]	1434	No	4/29/2016	No	No
Rotman	1681	1475	Possibly [†]	14/6/2016	No	Possibly [†]
Sassenhagen	1433 [‡]	1433	No	21/6/2016	Yes	Yes ⁵
Schmalz	1470	1195	No	4/27/2016	No	No
Schneider	1972 [‡]	1972	Yes (count exceeded)	4/29/2016	No	Yes
Sunder	528 [‡]	528	Yes (under count)	16/6/2016	Yes	Yes ×25,6
Swartz	11,155 [‡]	11,155	Yes (count exceeded)	4/28/2016	No	Yes
Teixeira da Silva**	1470	1416	No	9/6/2016	No	No
Tressoldi	723	560	Yes (under count)	11/5/2016	No	Yes
Vandekerckhove and Wagenmakers	1055	786	No	16/6/2016	Yes	Yes ⁶
Verheggen	1307 [‡]	1307	No	5/26/2016	No	Yes ⁵

Table 1 shows essays that have broken the rules of the Laura and John Arnold Foundation-funded essay contest published in *The Winnower* (<https://thewinnower.com/keywords/ljafreproducibility>). The word count limits for the contest were 750-1500 words, and the submission deadline was June 15, 2016.

Notes:

* Listed alphabetically.

** The only paper with a formal conflict of interest statement.

‡ Some essays did not have references.

† Depending on the word count with or without references (a specific factor that was never clearly indicated by *The Winnower*, but one that can differ in other academic journals). So, in the four cases marked, if word counts of references are considered, then these essays violated essay rules, but if references are not considered as part of the word count, then these are valid (i.e., respect the rules of the contest) essays.

¹ word count refers to main body of text (excluding author identifiers and title), but including references.

² either a word count infraction or a submission date infraction should lead to a disqualification.

³ competition winners and recipients of the US\$ 500 prize.

⁴ word count in PDF downloaded on June 9, 2016 and word count of html text on October 26, 2016.

⁵ These essays were never archived (i.e., publication was never formally finalized) and has no valid or final citation, or DOI, as in most other archived essays. It is therefore not a valid submission, and should have been disqualified since archival was an essential aspect of the essay contest.

⁶ No affiliation listed.

2) Konrad Hinsen in fact critiqued several of the other contestants' essays online, including mine and of Olivia Guest, but all on June 21, 2016. How are those criticisms not considered to be a conflict of interest (COI), or an attempt to downplay competitors' essays so as to score a higher chance of winning the contest? Although there were no written or specified rules about this (although there should have been), the appropriateness of criticizing competitors as a potential tool to guarantee a winning slot cannot be ruled out. Why was Hinsen awarded a win if he violated the rules of the competition, and to some extent, critiqued some of his competitors? Is there perhaps a hidden COI with his Open Science project that has not been disclosed by him or the LJAF? Curiously, Olivia Guest, who was not selected as a winner, was critical of Hinsen's essay, writing a stinging critique on June 13, 2016, a week prior to his rebuke of her essay. Were these criticisms considered when the "secret" panel of judges selected the rule-breaking Hinsen essay as one of the two winning essays?

3) An explanation (by *The Winnower* and by the authors) as to why the Emmerich, Sassenhagen, Souder and Verheggen essays were not archived is required. Are they currently in a state of "limbo" (i.e., in publishing terms, in a non-citable form). Or should these be considered preprints?

4) A sincere and public apology should be made on the contest announcement page, without reservations, indicating that contestants were not clearly informed of the outcome. *The Winnower* management should also address the several issues plaguing this contest.

5) The LJAF, rather than attempting to distance itself from this essay scandal, claiming to only provide the financial support, should embrace that it has financed winners who have broken the rules of the contest, and that it has financially supported a flawed and mismanaged contest. It should set out a number of conciliatory and reparatory measures for all contestants, and should encourage *The Winnower's* management to comply with corrective measures specified herein.

6) The winners should reimburse the US\$ 500 for breaking the rules that a minority of the contestants in fact respected. All other essays (Table 1) that violated the contest rules, in one way or another, should be retracted.

7) Unfreezing the comments section of the contest results page to allow fair and free signed, but moderated, commentary.

8) Hold a new essay contest in which clear rules and timetables are set, and in which contestants who infract upon the rules are warned, then excluded if their infractions persist. Such a contest should involve open, but double-blind peer review, to make it as transparent as possible.

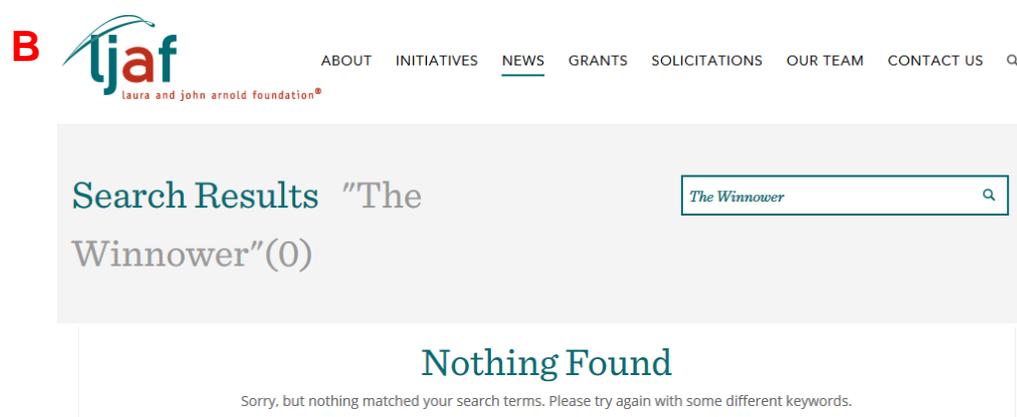
Conclusions

The contestants are all to be praised for a wealth of interesting and some refreshing ideas and perspectives related to reproducibility. However, these noble efforts may have been undermined by a poor culture of appreciation, a lack of respect to participants, and a blatant lack of respect for the contestant rules by the vast majority of contestants. Based on technical reasons, only 5 of the 21 contestants are in fact valid (Table 1).

A Towards identifying ways to ensure research is robust we are launching an essay competition sponsored by the Laura and John Arnold Foundation for researchers and other stakeholders to put forward new ideas and solutions to the reproducibility crisis that we face in science. How do we ensure and incentivize robust work? Does peer review need to be changed? Does data sharing need to be incentivized or mandated? Funding practices improved? Let us know what you think should be done to improve the system in a 750-1500 word essay.

The essay competition will run until June 15th and will be judged by a committee of scientists, librarians, members of industry, and students based on the following criteria. To enter, please upload your essay to the Winnower platform and include the following keyword [#LJAFreproducibility](#) or simply email it to contact@thewinnower.com and we'll do it for you!

We're waiving our publication cost of twenty-five dollars and awarding the top two essays prizes of \$500 each.



C Today, in service of this mission, we're announcing that we've acquired [The Winnower](#), a scholarly publishing platform with a simple vision: "All ideas should be openly discussed, debated, and archived." The Winnower has been one of the pioneers in the push towards a more transparent model of publishing, employing open post-publication peer review and providing a set of tools for researchers to benefit from publishing Grey literature.

The Winnower will power a range of publishing services for researchers who are writing on Authorea. Existing and new users will see a gradual roll-out of tools that are designed to help control the output and dissemination of research, including minting of DOIs, pre-print linking, and more.

Join us in welcoming the founder of The Winnower, Josh Nicholson, to our team as Chief Research Officer. (We also welcome his dog Pete who will fill our newly created position as Chief Dog Officer.)

Fig. 1. Details on *the Winnower* reproducibility essay contest

Figure 1 depicts the Winnower reproducibility essay contest, sponsored by the Laura and John Arnold Foundation (LJAF), clearly states the word count and the closing date of submission (A). Any contestant in violation of either of these basic rules should be invalidated and disqualified, as detailed in Table 1. There is no formal record of funding to The Winnower on the LJAF grants page (B). The Winnower CEO, Joshua (Josh) Nicholson was recently appointed, after a November 2016 sale of The Winnower to Authorea (<https://www.authorea.com/>), as the Chief Research Officer (C).

By allowing double standards in this contest, namely the imposition of one set of rules for some contestants, and a separate or flexible set of rules for others, makes this contest unfair, and void. The two winners of this LJAF-funded essay contest (Hinsen and Jorstad) are thus in fact invalid. In an academic setting, authors that violate the written rules set by journals and publishers suffer consequences, including rejections and retractions (if rule violation was detected before/during or after submission/publication, respectively). So why is *The Winnower*, an OA journal, an exception? Thus, to allow this essay contest result to remain unchallenged, and to leave the published literature uncorrected, is a direct affront to the institution of reproducibility, because

it erodes trust, confidence, respect, and rules. The lack of strict adherence to rules, the lack of the enforcement of rules, or the lack of a fair and across-the-board exemption to those rules, is a corrupting factor in science and science publishing. It makes one wonder if, had the rules been truly followed and respected, and if essays that should have been excluded for technical reasons were in fact excluded, if contestants such as MacLennan could have been deserving of the US\$ 500 cash prize, given his lamentation in the last sentence of his essay “I just have a few bucks in the bank, but I’m waiting for a possible \$500 payout.”

In early November of 2016, Authorea (<https://www.authorea.com/>) purchased *The Winnower*, Josh Nicholson was appointed as the Chief Research Officer, and Mr. Nicholson’s dog was appointed as the Chief Dog Officer (Fig. 1B). Of concern is if Mr. Nicholson has been so opaque about the essay context, how can be entrusted with such an important academic position as the Chief Research Officer? Finally, one must also question the ambitions and objectives of the LJAF, whose founder, John Arnold, was an Enron insider, and an organization that claims to have philanthropic interests. If philanthropic organizations are willing to dole out funding to supposedly deserving causes, but are unwilling to be held accountable for any ethical infractions by the organizations that have received their monetary donations, then does the public need to begin to question the motives and ethics of such foundations? The link between the LJAF and *The Winnower* has now become crystal clear, preprints (Teixeira da Silva, 2017).

Conflicts of Interest

The author declares no financial conflicts of interest. The author has interacted and communicated with Dr. Leonid Schneider, one of the essay contestants, but not within the context of this essay contest. The author has several disagreements with some LJAF-funded groups such as PubPeer and Retraction Watch.

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