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## Questions Worth Raising: Automated Writing Evaluations And Legacy Admissions

**Peer review status:**

No

**Corresponding Author:**

Dr. Deepak Gupta,  
Anesthesiologist, Wayne State University, 48201 - United States of America

**Submitting Author:**

Dr. Deepak Gupta,  
Anesthesiologist, Wayne State University, 48201 - United States of America

**Other Authors:**

Dr. Sarwan Kumar,  
Assistant Professor, Wayne State University, Internal Medicine - United States of America

**Article ID:** WMC005673

**Article Type:** My opinion

**Submitted on:** 26-Dec-2020, 10:18:06 PM GMT **Published on:** 27-Dec-2020, 08:17:06 AM GMT

**Article URL:** [http://www.webmedcentral.com/article\\_view/5673](http://www.webmedcentral.com/article_view/5673)

**Subject Categories:** MEDICAL EDUCATION

**Keywords:** Automated Writing Evaluations, Legacy Admissions, Graduate Medical Education, Personal Statement

**How to cite the article:** Gupta D, Kumar S. Questions Worth Raising: Automated Writing Evaluations And Legacy Admissions. WebmedCentral MEDICAL EDUCATION 2020;11(12):WMC005673

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**Source(s) of Funding:**

NOT APPLICABLE

**Competing Interests:**

NOT APPLICABLE

# Questions Worth Raising: Automated Writing Evaluations And Legacy Admissions

**Author(s):** Gupta D, Kumar S

## My opinion

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As medical education researchers, we have a vision and that is why we are raising these questions. Can automated writing evaluations of personal statement help in objective assessments of applications? Can legacy admissions be objectively streamlined in graduate medical education?

## Automated Writing Evaluation of Personal Statement

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Reviewers' critiques and comments about written language started this quest about how reviewers of biomedical manuscripts recognize that English is authors' second language in spite of them being blind to authors' identities. We wondered that there must be some outliers within written texts which make it easy for reviewers to recognize the above-mentioned fact [1]. We also wondered whether reviewers who are biomedical peers are trained and proficient to recognize these outliers. Therefore, as a solution, we thought whether artificial intelligence (AI) can perform this work by either writing manuscripts or correcting written drafts in real time assuming that no language can be a second language for AI [2]. Therefore, we have explored ai-writer.com and grammarly.com to generate and correct biomedical text respectively [3-4]. However, text correction has been more successful than text generation because generated text has required improvements to convey our thoughts appropriately. While we have not published AI-generated text, we have played with philosopherai.com to generate personal statements to see if AI-generated text conveys thoughts appropriately [5]. Although AI-authors as AI-text generators are still in infancy stages and still learning to evolve, AI-editors and AI-evaluators have been making inroads for some time providing automated writing evaluations (AWEs) and objectively scoring texts [6]. However, bias-free processes may still remain unachievable because during natural selection [7], bias may have evolved innately among humans who may have passed it onto AI while designing AI which AI may not be able to discard even when it

starts learning on its own. Futuristically as a countermeasure against plagiarism, it will be interesting to see if AI-evaluators will be able to differentiate texts written by humans with or without corrections by AI-editors from texts generated by AI-authors. In the interim, it may be a good start for program directors as human-evaluators to seek assistance from AI-evaluators like ETS e-rater® and virtualwritingtutor.com [8-9], which may objectively score personal statements to compare applicants during recruitment processes. Ongoing resident recruitment season onward, we may consider to explore double-digit scoring of personal statements (essays) by virtualwritingtutor.com over 6-point ETS e-rater® with self-identifiers in personal statements removed (automatic or manual redactions) before uploading personal statements into AI-evaluators [10]. As medical licensing examination has replaced numerical scoring with Pass-Fail, personal statements' AWE scores may impart technological objectivity into holistic review of multi-thousand applications submitted electronically to graduate medical education programs.

## Legacy Admissions In Graduate Medical Education

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The time has come to move beyond debating needs and harms of legacy admissions [11-12]. It is time to standardize the process of legacy admissions by completely separating it from the process of non-legacy admissions with an annually updated ceiling for the percentage recruited as legacy admissions within each department/school/institution. For graduate medical education (GME) programs, a reasonable ceiling can be 10% provided that at least ten slots are up for recruitment annually. Although incidence of legacy admissions in GME is not known, recruitment practices disproportionately favoring rich and privileged imply college and medical school recruitment practices overflowing into GME [13-15]. Therefore, 10% is a conservative estimate/projection limiting legacy admissions to 1/year/program because programs uncommonly recruit in double digits. Though in the absence of candidates meeting the standards for legacy admissions, their allotted seats can be filled with

non-legacy candidates, vice-versa should not be allowed so as to ensure that in the garb of sustaining overbearing legacy, the legacy of high standards at department/school/institution is not detained. The GME programs can initially screen all applications as per their online filtering criteria like examination scores, year of graduation and work authorization status to name a few. After the initial online filtering of applications and after ensuring provisions for blinding applicationsâ€™ reviewers to applicantsâ€™ photograph, name, age, gender, birthplace, language proficiency, ethnicity and postal/ZIP code [16], GME programsâ€™ recruitment teams can manually review filtered applications to decide which applicants meet their criteria for interview calls. However, at this time, the number of non-legacy applicants called for interviews should be limited to  $[10 \times 0.9n]$  with  $n$  being the number of seats up for recruitment that year. For the remaining  $[10 \times 0.1n]$  interview slots, the legacy applicants can be interviewed ensuring that although these legacy applications did not fulfill manually reviewed criteria of GME programsâ€™ recruitment teams, they must have met their online filtering criteria. Essentially, legacy applicants who get filtered out per online criteria may not be called for interviews despite available vacancies among  $[10 \times 0.1n]$  interview slots. All legacy interviewees should be interviewed on same day for comparative evaluation among them before ranking only  $[0.1n]$  interviewees higher enough within the National Resident Matching Program ranking lists so that at most  $[0.1n]$  interviewees can match as legacy at GME programs. Essentially, the legacy recruitment among GME programs should be performed transparently and objectively so that non-legacy applicants can survive the onslaught of legacy applicants comprehensively and effectively.Â

## Conclusion

Summarily, as medical education researchers, it is worth asking whether automated writing evaluations of personal statement can help in objective assessments of applications and whether legacy admissions can be objectively streamlined in graduate medical education.

## References

- Nicklin C, Plonsky L. Outliers in L2 Research in Applied Linguistics: A Synthesis and Data Re-Analysis. *Annual Review of Applied Linguistics* 2020;40:26-55. <https://doi.org/10.1017/S0267190520000057>
- The Guardian. The rise of robot authors: is the writing on the wall for human novelists? <https://www.theguardian.com/books/2019/mar/25/t-he-rise-of-robot-authors-is-the-writing-on-the-wall-f-or-human-novelists>
- AI-writer. <http://ai-writer.com/>
- Grammarly. <https://www.grammarly.com/>
- Philosopher AI. <https://philosopherai.com/>
- Lu X. An Empirical Study on the Artificial Intelligence Writing Evaluation System in China CET. *Big Data*. 2019;7(2):121-129. <https://doi.org/10.1089/big.2018.0151>
- Haselton MG, Nettle D, Murray DR. The Evolution of Cognitive Bias. In: Buss DM, ed. *The Handbook of Evolutionary Psychology*, 2nd ed. Hoboken, NJ: John Wiley & Sons, Inc; 2016;968-987. <https://doi.org/10.1002/9781119125563.evpsych241>
- ETS. About the e-rater® Scoring Engine. <https://www.ets.org/erater/about>
- Virtual Writing Tutor. <https://virtualwritingtutor.com/>
- Objective REDACT. <https://www.objective.com/products/objective-redact>
- Elam CL, Wagoner NE. Legacy admissions in medical school. *Virtual Mentor*. 2012;14(12):946-949. <https://doi.org/10.1001/virtualmentor.2012.14.12.eas3-1212>
- Gupta D, Kumar S. 2019 College Admissions Story And ERAS/NRMP/GME. *WebmedCentral MEDICAL EDUCATION*. 2020;11(2):WMC005604. [http://www.webmedcentral.com/article\\_view/5604](http://www.webmedcentral.com/article_view/5604)
- Kahlenberg RD, ed. *Affirmative Action for the Rich: Legacy Preferences in College Admissions*. New York, NY: The Century Foundation Press; 2010. <https://www.amazon.com/Affirmative-Action-Rich-Preferences-Admissions/dp/0870785184>
- Freidman S, Laurison D. *The Class Ceiling: Why it Pays to be Privileged*. Bristol, UK: Policy Press; 2020. <https://www.amazon.com/Class-Ceiling-Why-Pays-Privileged/dp/1447336062>
- Gupta D, Kumar S. Self-Healing Ceiling. *WebmedCentral MEDICAL EDUCATION* 2020;11(2):WMC005606. [http://www.webmedcentral.com/article\\_view/5606](http://www.webmedcentral.com/article_view/5606)
- Gupta D, Kumar S. Can ERAS allow blind interview calls? *Residency Program Alert*. 2017;15(2):7-9. <http://www.hcpro.com/RES-328855-2699/Can-ERAS-allow-blind-interview-calls.html>

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