This study investigated the beliefs of mathematics educators regarding issues of scholarship and tenure associated with material published in electronic journals on the Internet. Based on 58 responses received through an e-mail survey, the study showed that respondents felt: comparable print and e-journals should garner the same prestige and respect; serving as an editor of an e-journal should be as respectable as carrying out the same responsibilities for a print journal; articles in e-journal format based on a blind peer-review process should be accepted for merit, promotion, and tenure review; and that review committees should consider e-journal articles equal to print journal articles in regard to questions of merit, promotion, and tenure. There is also agreement that e-journal publications that do not appear in print format should be judged on their own merit. There is support for research published in e-journals as meeting the criteria of scholarship. (MKA)
Electronic Journals, Scholarship, and Tenure: Paving the Way for New Policies in Higher Education

By:

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Statement of the Problem

As access to the Internet becomes more of an expectation than an exception, professionals in collegiate education have begun to ponder the question of the merits of publications appearing through an electronic format. With costs in securing journals and dissemination of research increasing, many college and university libraries as well as faculty members are seeking alternative venues for publications. One such alternative is the use of electronic journals (e-journals) on the Internet as a means of publishing and disseminating research. The interest in electronic forms of scholarly communication reflects both the growing influence of the Internet as well as a search for more timely and convenient means for making public new research results (Policy Perspective, 1998). However, the publication of research results by means of e-journals presents important questions that need to be addressed by the research community. The purpose of this research was to investigate the beliefs of mathematics educators regarding issues of scholarship and tenure associated with e-journals. Specifically, the following questions guided this study:

1. What is the attitude of professional mathematics educators toward publishing research and scholarly materials through electronic means in an on-line journal?
2. Would administration and/or personnel review committees consider a scholarly work published in an on-line journal to have equal merit with the same article published in a print journal?

Perspective

Although most college and university guidelines for promotion and tenure establish criteria in the three areas of teaching, research, and service, scholarship is often the most important. Scholarship is often narrowly interpreted to mean the publication of research articles in prestigious peer-reviewed journals (Whicker, Kronenfeld, & Strickland, 1993). According to Glenn (reported in Matkin & Riggar, 1991) journals perform at least three major functions: 1) serve as vehicles for the dissemination of new knowledge, 2) serve as “gatekeepers” to determine which research contributes to the existing body of knowledge, and 3) provide personal recognition and rewards for authors. Questions regarding publication guidelines such as the use of an editorial board and a blind, peer-review process for determining which articles should be published need to be addressed.

Methods and Procedures

Since the focus of this project was the evaluation of scholarly work published through an electronic format, the research team decided to conduct a survey via e-mail. The membership lists of several mathematics education organizations were used as the basis for the sample, but only members with e-mail addresses were included in the study. This was a limitation of this study. However, the researchers felt that participants with e-mail addresses would be more likely to access the Internet and read an on-line journal. Once the list of respondents was established, the survey was developed and put on a special website. The survey consisted of a personal data section, a series of 20 statements allowing Likert-type scale responses with “1” indicating total disagreement and “5” indicating total agreement. Survey responses appeared in fluid text, with no division between Likert-scale items. Because responding to the website assured anonymity, non-respondents could not be isolated and follow-up reminders could not be sent to them. It was impossible to determine how many in the sample had actually received the e-mail message and therefore it was difficult to ascertain the percent of return responses. After a three-week period, the survey responses were analyzed.
Results and Conclusions

A total of 58 completed surveys were submitted. Almost half of the submitted surveys contained lengthy and constructive comments which added insight to the study. The 20 statements were separated into three categories: prestige and respect, tenure and promotion, and scholarship.

Results indicate that respondents believe that comparable print and e-journals should garner the same prestige and respect (X = 3.45). Even though there is uncertainty (X = 2.42) about the current status, work which appears in e-journals should have the same respect as when it is reported in established print journals. Serving as an editor of an e-journal should be as respectable as carrying out those same responsibilities for a print journal (X = 4.25).

Respondents indicated very strongly that articles appearing in the e-journal format that had been published based on a blind peer-review process should be considered as acceptable for merit, promotion, and tenure (X = 4.33). They also supported the idea that when serving on review committees they would consider e-journal articles in the same manner as they would print journal articles for questions of merit, promotion, and tenure (X = 4.23). There is some agreement that e-journal publications should be judged on their own merit when the same article did not appear in print format (X = 3.22).

In the last category, respondents supported the interpretation of research published in e-journals as meeting the criteria of scholarship. Not only would publishing through an electronic format be interpreted as “scholarly” (X = 3.88), such articles would be considered as valid reference materials for other manuscripts (X = 4.55). Since dissemination of results is one goal of the research community, an electronic format provides an additional means by which this information can be presented to other interested scholars and practitioners in a timely fashion.

Results and Implications

The participants in this study believed that articles published in e-journals should be considered as scholarly as articles published in print journals. This equality of prestige and respect is not currently at the level the respondents think is deserved. As more and more higher education faculty connect to the Internet, publication and dissemination of research through electronic means must be addressed. Policies developed for appraisal, retention, tenure, and promotion should be reconsidered with respect to the merit of research disseminated through electronic means in peer-reviewed e-journals in addition to articles appearing in traditional print journals. Continued research into the issues of scholarship and questions of tenure need to be expanded. Future studies should focus on larger samples and on administrators whose responsibilities include making recommendations for tenure and promotion of faculty. With the world wide web opening up the realm of higher education to the world, can current research find a respected and influential home on the electronic super highway?

References


<table>
<thead>
<tr>
<th>STATEMENTS</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. An article appearing in an e-journal is as scholarly as the same article in a print journal.</td>
<td>3.875</td>
<td>1.251</td>
</tr>
<tr>
<td>2. An article appearing in an e-journal carries as much prestige as an article in a print journal.</td>
<td>3.018</td>
<td>1.272</td>
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<tr>
<td>3. I think an e-journal article impacts research as much as a print journal.</td>
<td>3.893</td>
<td>0.846</td>
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<tr>
<td>4. Currently in the academic community, comparable print journals and e-journals command the same respect.</td>
<td>2.417</td>
<td>1.252</td>
</tr>
<tr>
<td>5. Comparable print journals and e-journals should command the same respect.</td>
<td>3.452</td>
<td>1.532</td>
</tr>
<tr>
<td>6. As an author, I would expect a blind peer-reviewed e-journal article to be weighted the same as a similar print journal article for merit, promotion, and tenure.</td>
<td>4.333</td>
<td>1.064</td>
</tr>
<tr>
<td>7. As a member of a merit, promotion, and tenure committee, I would make decisions on the basis that blind peer-reviewed e-journal articles and print journal articles carry the same weight.</td>
<td>4.232</td>
<td>1.191</td>
</tr>
<tr>
<td>8. Serving as a reviewer or on an editorial panel for an e-journal would merit the same respect as serving in the same capacity for a print journal.</td>
<td>4.250</td>
<td>0.815</td>
</tr>
<tr>
<td>9. For merit, promotion, and tenure decisions, an article that is only in an e-journal would be weighted the same as an article that appears both in a print journal and in an e-journal.</td>
<td>3.218</td>
<td>1.397</td>
</tr>
<tr>
<td>10. I would cite e-journal articles in my research.</td>
<td>4.554</td>
<td>0.630</td>
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<tr>
<td>11. I would submit an article to an appropriate e-journal.</td>
<td>4.411</td>
<td>1.075</td>
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<td>12. I would consider being a reviewer for an e-journal.</td>
<td>4.527</td>
<td>0.879</td>
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<tr>
<td>13. If the time from reviewing to publishing in an e-journal was less than for a print journal, I would be more inclined to submit a manuscript to an e-journal.</td>
<td>4.161</td>
<td>1.023</td>
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<td>14. I would be willing to pay a reasonable fee for the publication of a blind, peer-reviewed article in an e-journal.</td>
<td>4.291</td>
<td>0.956</td>
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<td>15. I would read an e-journal in my field.</td>
<td>4.339</td>
<td>1.133</td>
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<td>STATEMENTS</td>
<td>Mean</td>
<td>SD</td>
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<tr>
<td>16. I would subscribe to an e-journal in my field.</td>
<td>4.179</td>
<td>1.177</td>
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<td>17. Review of articles and responses to articles in e-journals should be conducted by electronic means.</td>
<td>4.357</td>
<td>1.271</td>
</tr>
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<td>18. Access to e-journals should be by subscription only.</td>
<td>2.804</td>
<td>1.420</td>
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<td>19. It is necessary to have hard copies of articles appearing in e-journals.</td>
<td>4.327</td>
<td>0.818</td>
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<td>20. An e-journal would be more credible if the articles were archived to preserve the research.</td>
<td>4.643</td>
<td>0.819</td>
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<tr>
<td>21. &quot;life&quot; or longevity</td>
<td>3.225</td>
<td>0.966</td>
</tr>
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<td>22. composition of editorial panel</td>
<td>3.618</td>
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<td>23. review process</td>
<td>3.618</td>
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<tr>
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<td>2.591</td>
<td>1.284</td>
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<td>25. access by subscription</td>
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