# E-Learning as Evidence of Educational Scholarship: A Survey of Chairs of Promotion and Tenure Committees at U.S. Medical Schools

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## Abstract

### Purpose
To ascertain the attitudes of chairs of U.S. medical school promotion committees toward e-learning and how their institutions recognize and reward faculty for e-learning as a scholarly activity.

### Method
In 2007, the authors mailed a questionnaire to chairs of promotion and tenure committees at 123 U.S. medical schools. Chairs rated the importance of major areas of clinician–educators' e-learning performance using a five-point scale (1 = not important; 5 = extremely important). In another section, chairs rated the quality of information that is usually available to evaluate faculty performance in e-learning scholarship using a five-point scale (1 = low quality; 5 = excellent). Respondents were also able to enter qualitative comments about the role of e-learning and educational scholarship at their institution. Frequency distributions for each question were examined to identify any irregularities in the data, and descriptive statistics were used to summarize responses to questions. Themes were extracted from the qualitative data.

### Results
The response rate to the survey was 51% (63/123). Fifty-six (88.8%) participants indicated that educational scholarship was at least moderately important to a candidate's chances of promotion. Forty-eight (76%) respondents recognized e-learning as a meaningful contribution to scholarship. The chairs rated several levels of evaluation as well as types of e-learning activities and products: changing learner outcomes, developing and disseminating materials, authoring publications, receiving grant awards, serving on editorial boards, and directing a program.

### Conclusions
Promotion chairs value selected e-learning activities and products as evidence of teaching scholarship.

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The definition of scholarship has recently undergone a substantial transformation. With the 1990 publication of Boyer's *Scholarship Reconsidered*, experts abandoned a definition of "research" scholarship, considered by many to be overly narrow, in favor of Boyer's new framework that included the scholarship of discovery, teaching, application, and integration.[1,2] According to Shulman, the scholarship of teaching requires that educators make their faculty-derived work public, available for peer review and critique using commonly accepted standards, and reproducible and extendable by others.[3] A wide variety of educational works, including digital resources, may meet these criteria.

Although many in the medical education community have adopted this more inclusive view of scholarship, Fincher et al[4] observed in 2000 that some medical schools retain a view of scholarship that is "unnecessarily narrow and excludes areas of legitimate academic activity and productivity that are vital to the fulfillment of the school's educational mission." The 2006 Group on Educational Affairs Consensus Conference on Educational Scholarship suggested that recognition of educators is improving and offered useful standards for the activities and evidence of educational scholarship. Notably, this report indicated, through several examples, that digital educational resources can be a legitimate form of educational scholarship if they are associated with sufficient evidence.[5]

Medical educators use a wide variety of methods and tools as part of their teaching, learning, and assessment activities. E-learning refers to the use of Internet technologies to deliver a broad array of learning materials that enhance students' knowledge and performance.[6] As such, e-learning scholarship may take the form of educational Web sites, virtual patient simulations, online problem-based learning cases, computer-based animations, and interactive multimedia tutorials.[7–10] It is easy to understand why e-learning approaches have gained great popularity among medical educators. As medical education continues to face social, scientific, and pedagogical challenges, e-learning applications can improve the efficiency and effectiveness of educational interventions.[11] Since the 1992 *Assessing Change in Medical Education—The Road to Implementation* publication, national organizations have

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encouraged medical schools to incorporate computer technologies in medical student curricula and faculty development programs.[12] To foster the development, sharing, and recognition of e-learning materials as educational scholarship, the Association of American Medical Colleges (AAMC) and other organizations have created repositories of e-learning materials that have undergone a rigorous peer-review process for acceptance and subsequent online publication.[13,14] Although such organizations are able to confer peer recognition for e-learning submissions, anecdotal evidence suggests that few institutions currently recognize peer-reviewed e-learning resources and activities as a legitimate scholarly activity that substantially contributes to faculty promotion and academic advancement. Traditional scholarly works counting as "objective performance benchmarks" necessary for promotion of clinician–educators more often consist of peer-reviewed publications, books or chapters, editorial services, recognition by peers, invited presentations, and grants and contracts.[15]

Clinician–educators at U.S. medical schools face considerable difficulties during the promotion-in-faculty-rank process.[16] This lack of recognition of their efforts frustrates the recruitment of qualified and enthusiastic teaching faculty for medical schools. Barriers to faculty promotion and tenure fall into several categories: inconsistent or nonexistent clinical faculty promotion and tenure criteria; lack of a structural framework within medical schools to foster and reward all types of scholarship, including teaching; lack of protected faculty time due to increasing demands to provide clinical services and clinical teaching; lack of support for faculty engaging in scholarly activities; lack of knowledge regarding the national trend toward an expanded definition of scholarship; unreasonable time expectations to achieve promotion; and perceived disparity related to gender, race, ethnicity, and foreign-trained status.[16]

With the advent of the Internet, basic science and clinical educators have begun to use online technologies and multimedia to enhance medical education.[10] Clinician–educators have found e-learning a potentially effective tool for learning and instruction at U.S. medical schools. There is at best only an anecdotal grasp of the current understanding by promotion and tenure committees' perceptions and practices regarding faculty e-learning activities and products. The purpose of this survey of chairs of medical school promotion and tenure committees was to determine whether and how they value e-learning as part of their committees' promotion and tenure decisions. This is a very important issue for medical educators who increasingly dedicate their efforts to e-learning activities and the development of scholarly e-learning resources that require substantial investments of time and money.

## Method

### Study population

We targeted chairs of faculty promotion committees at 123 U.S. medical schools, compiling a list of recipients that was based on information available through the AAMC.[17] On the first page of the survey instrument, we defined clinician–educators as "physicians whose primary responsibilities are patient care and education and whose research represents only a minor portion of their academic contributions." We obtained an exempted IRB approval to conduct this survey.

### Questionnaire

In one section of the questionnaire, chairs rated the importance of major areas of the clinician–educator's e-learning performance: designing, developing, and disseminating e-learning materials and demonstrating a favorable change in learner performance/outcomes; authoring publications; receiving grants; serving on editorial boards, review bodies, or in elected positions; and directing a program, center, institute, or laboratory. The survey options consisted of a five-point scale (1 = not important; 5 = extremely important). In another section, chairs rated the quality of information that is usually available to evaluate faculty performance in e-learning scholarship using a similar five-point scale (1 = bad; 5 = excellent) (Appendix 1).

### Survey administration

We pilot tested the questionnaire with a convenience sample of four faculty members of medical school promotion and tenure committees. After making necessary revisions, we mailed the questionnaire to the 123 chairs with an explanatory cover letter. After two weeks, in sequence, we sent reminder postcards, facsimile reminders, and two repeat mailings to nonrespondents. At the end of this process, we contacted remaining nonrespondents by phone. We originally mailed the survey in January 2007, and most participants returned completed surveys between February and May 2007.

### Statistical analysis

We examined frequency distributions for each question to identify any irregularities in the data, and we used descriptive statistics to summarize responses to questions. We then separated the data from any information that would reveal the identity of a department or school. We used the SPSS 14 Base for Windows (SPSS Inc., Chicago, Illinois) statistical package for all analyses. Two authors reviewed qualitative data by reading all of the survey narrative comments to ensure accuracy of the data before initiating data analysis. These authors then extracted themes as they reviewed the surveys. A third investigator reviewed comments and themes to resolve discrepancies. Researchers identified themes by "bringing together components or fragments of ideas or experiences, which often are meaningless when viewed alone."[13]

## Results

Sixty-three (51.2%) respondents returned the surveys from a total of 123 distributed nationwide.

### Demographic data

Of the 63 respondents, 22 (34.9%) are from private institutions, and 40 (63.5%) are from public institutions. There is one federal institution. Among the 60 nonrespondents, the distribution is very similar: 23 (38.3%) are from private institutions, and 37 (61.7%) are from public institutions. In terms of geographic distribution and class size, respondents' institutions are representative of U.S. medical schools (data available on request). The mean total enrollment for the participating institutions was 556.0 (SD = 193.7), and for the nonparticipating ones it was 567.6

(SD = 231.2). The mean class size of participating institutions was 128.8 (SD = 48.4), and it was 129.9 (SD = 53.3) for the nonparticipating institutions. From these data, we can conclude that respondents' institutions are similar and representative of the population of U.S. medical schools.

### Promotions board and educational scholarship

A majority of the respondents (46/63, 73.0%) answered that their current institution has a clinical educator track for faculty. Of those respondents, 71.7% (33/46) indicated that their school does not offer tenure for clinician–educators. In terms of the requirement for an educational/teaching portfolio submission, 31 of the 63 respondents (49.2%) indicated that their institutions require portfolios, whereas 27 (42.9%) indicated that their institutions accept educational/teaching portfolios but do not require them. Again, the majority of the respondents (46/63, 73.0%) indicated that their faculty members must demonstrate some institutional performance benchmark. Fewer than half of the respondents (29/63, 46.0%) indicated that their institution offers some type of training for promotion committee members. The composition of promotion committees at most respondent schools was predominantly (88.8%) medical school faculty.

### Evaluation of candidates

Sixty-one (96.8%) of the responding promotion chairs indicated that a candidate's performance as an educator was at least moderately important to the medical school. Fifty-six (88.8%) participants indicated that educational scholarship was at least moderately important to a candidate's chances of promotion. On the other hand, 59 chairs (93.6%) recognized clinical scholarship and research as at least moderately important. Fifteen (23.8%) participants acknowledged that their institution does not recognize e-learning as a meaningful contribution to scholarship. Table 1 lists questions addressing the evaluation of faculty members' e-learning activities. Forty-eight (76.1%) participants acknowledged their institution's commitment to recognize e-learning as a meaningful contribution to scholarship. These participants answered the questions in Table 2.

Those chairs recognizing e-learning as a meaningful contribution to scholarship (48 of 63) rated as most important and considerably important several e-learning activities. Obtaining grant awards for development of and/or research on e-learning was the top item (70.8%), followed by the authoring of publications on the creation and use of e-learning (62.5%) and administrative roles such as directing a program, center, institute, or laboratory for medical e-learning (62.5%). Chairs were less enthusiastic about the participation of faculty members on editorial boards and review bodies or in elected positions of medical e-learning groups and repositories (58.3%). Less important were the requirements to demonstrate e-learning effectiveness by documenting a favorable change in learner performance/outcomes (37.5%) and the design, development, and dissemination of e-learning materials (39.6%).

### Evaluation of e-learning resources as evidence of scholarship

Table 2 presents the responses of promotion committee chairs recognizing e-learning as a meaningful contribution to scholarship (48 of 63), regarding the evaluation of e-learning resources as evidence of scholarship for promotion and tenure decisions. More than half of these respondents rated as excellent peer review by colleagues (26/48, 54.2%) and the publication of materials in national peer-reviewed repositories of medical e-learning materials (54.2%). The incorporation of e-learning products into other medical school curricula also received high ratings (45.8% rated as excellent). Evaluation and feedback on e-learning resources from faculty and students was the lowest-rated item in terms of its importance to recognition of

Table 1

**Questionnaire Items Addressing Performance Evaluation of Educators Involved in E-Learning and Ratings From 48 Responding Chairs* of Faculty Promotion Committees Surveyed in 2007 About E-Learning as Evidence of Educational Scholarship**

| | Most important (%) | Considerably important (%) | Moderately important (%) | Slightly important (%) | Not important (%) | Did not answer (%) |
|---|---|---|---|---|---|---|
| Demonstrating that e-learning had a favorable change in learner performance/outcomes | 1 (2.1) | 17 (35.4) | 18 (37.5) | 6 (12.5) | 5 (10.4) | 1 (2.1) |
| Designing, developing, and disseminating e-learning materials | 2 (4.2) | 17 (35.4) | 24 (50.0) | 5 (10.4) | 0 (0) | 0 (0) |
| Authoring publications on creation and use of e-learning (journal articles, book chapters/review articles) | 2 (4.2) | 28 (58.3) | 10 (20.8) | 6 (12.5) | 1 (2.1) | 1 (2.1) |
| Receiving grant awards for development of and/or research on e-learning | 9 (18.7) | 25 (52.1) | 11 (22.9) | 3 (6.3) | 0 (0) | 0 (0) |
| Serving on editorial boards, review bodies, or in elected positions of medical e-learning groups and repositories | 5 (10.4) | 23 (47.9) | 14 (29.2) | 6 (12.5) | 0 (0) | 0 (0) |
| Directing a program, center, institute, or laboratory for medical e-learning | 6 (12.5) | 24 (50.0) | 15 (31.2) | 2 (4.2) | 1 (2.1) | 0 (0) |

* Forty-eight out of 63 total respondents acknowledged their institution's commitment to recognize e-learning as a meaningful contribution to scholarship. Their responses are reported here.

Table 2

**Questionnaire Items Addressing Evaluation of E-Learning Resources (or Activities) as Evidence of Scholarship and Ratings From 48 Responding Chairs* of Faculty Promotion Committees Surveyed in 2007 About E-Learning as Evidence of Educational Scholarship**

| | Excellent (%) | Good (%) | Fair (%) | Inadequate (%) | Bad (%) | Did not answer (%) |
|---|---|---|---|---|---|---|
| Evaluation by peers (e.g., peer review) | 26 (54.2) | 17 (35.4) | 4 (8.3) | 1 (2.1) | 0 | 0 |
| Evaluation and feedback from students and other instructors/faculty | 10 (20.8) | 31 (64.6) | 7 (14.6) | 0 | 0 | 0 |
| Publication of materials in a national peer-reviewed repository of medical e-learning materials (e.g., MedEdPORTAL) | 26 (54.2) | 20 (41.7) | 2 (4.1) | 0 | 0 | 0 |
| Documented incorporation of e-learning product into curriculums of other medical schools | 22 (45.8) | 22 (45.8) | 3 (6.3) | 0 | 0 | 1 (2.1) |

* Forty-eight out of 63 total respondents acknowledged their institution's commitment to recognize e-learning as a meaningful contribution to scholarship. Their responses are reported here.

educational scholarship (20.8% rated as excellent).

### Role of educational scholarship

When chairs whose institutions recognized e-learning as a meaningful contribution to scholarship answered whether their institutions value clinical or research scholarship more than educational scholarship as part of promotions and tenure decisions, 47.9% (23/48) selected clinical or research scholarship, and 52.0% (25/48) chose educational scholarship. When asked to identify factors likely responsible for this difference, promotion chairs cited lack of familiarity with the evaluation of educational scholarship (31%), the observation that most educational scholarship does not undergo peer review (25%), the fact that medical schools do not widely accept educational scholarship or consider it a new concept, even if peer reviewed (20%), and an institutional culture that is not supportive of educational scholarship (12%). A few chairs described other reasons, such as fewer opportunities for external competitive research funding, changes in culture and expectations, lack of clear guidelines in the medical school, and the perception that e-learning scholarship is easy to do in terms of the time and effort required compared with clinical or research scholarly activities.

### Qualitative data: Emerging themes

From the 63 responses, approximately 12 (19%) participants added comments about their institution in regard to the role of e-learning and educational scholarship. Four themes emerged from the qualitative data (Table 3):

**Theme one: The institution was in a transitional or initial stage in regard to recognition of a clinician–educator track and the role of e-learning.** This was the most predominant theme, being mentioned six times. The participants indicated that their institutions are looking into e-learning as scholarship for promotion and tenure, but the process is slow and only in the initial stages. Some also indicated that exploring the role of e-learning as scholarship in promotion and tenure consideration is a future goal for the institution.

**Theme two: Openness to exploring e-learning.** The participants seem encouraged and open to further exploration of e-learning. Many institutions have considered e-learning, but there was no motivation to start the process. Even though it is a challenge, the participants are very open to implementing this opportunity in their institutions and corresponding with other institutions.

**Theme three: Perceptions of ill-defined and evolving peer-review criteria of e-learning materials.** As noted before, e-learning is still a very new idea and is still in its initial stages. Related procedures and policies are still ill-defined to many educators. Participants are unsure of general information and peer-reviewed criteria of e-learning materials.

**Theme four: Entrenched attitudes and resistance of senior faculty to recognize e-learning as scholarship.** Senior faculty are not totally aware of the national trend toward a more broad definition of scholarship. To paraphrase, their belief is that, generally, publications in traditional journals are the only true form of scholarship.

**Summary.** We can see that e-learning as a form of scholarship is fairly new to many institutions and still a source of misunderstanding for many educators, which likely contributes to resistance and reluctance to accept e-learning as scholarship. To implement e-learning, faculty and staff must be able to use e-learning and fully understand the criteria and policies of using e-learning as a form of scholarship.

## Discussion

This study found that the standards and criteria for promotion and tenure based on educational accomplishments vary across institutions, a finding consistent with previous surveys of promotion and tenure practices.[18,19] Most promotion chairs indicated that educational scholarship was at least moderately important to a candidate's chances of promotion and recognized e-learning as a meaningful scholarly contribution. The chairs rated several e-learning activities and outcomes as important for promotion: change in learner outcomes, developing and disseminating materials, authoring publications, receiving grant awards, serving on editorial boards, and directing a program. Although some of these findings may reflect positive views of individuals dealing with the promotion and tenure of medical educators involved in e-learning activities, the more pervasive and thought-provoking issue may be differences in criteria and in the process of promotion and tenure between institutions.

Table 3

**Emerging Themes From Qualitative Comments by 12 Responding Chairs* of Faculty Promotions Committees Surveyed in 2007 About E-Learning as Evidence of Educational Scholarship**

| Theme | No. of comments | Example quotation |
|---|---|---|
| The institution being in a transitional or initial stage in regard to recognition of a clinician educator track and the role of e-learning | 6 | "Our college of medicine is in the process of revising RPT guidelines that will include the opportunity for promotion and tenure on the basis of being a clinician educator, including the development of e-learning tools useful for deployment on a local regional and international level." |
| Openness to exploring e-learning | 3 | "This is a challenge at our institution; we continue to explore ways to adequately document and evaluate educational scholarship, and we welcome opportunities to dialogue with other institutions regarding this." |
| Perceptions of ill-defined and evolving peer-review criteria of e-learning materials | 2 | "We are still having difficulty with issues of peer review of e-learning materials and how to value an e-learning contribution in comparison with a peer-reviewed journal article, review article, book chapter, etc." |
| Entrenched attitudes and resistance of senior faculty to recognize e-learning as scholarship | 1 | "In general, our institution has been slow in recognizing and accepting e-learning. There are still a lot of senior people who think that publications in traditional journals are the only true form of scholarship." |

* Twelve of the 63 total respondents added qualitative comments about their institution in regard to the role of e-learning and educational scholarship.

Most respondents' schools have clinical educator tracks, a finding consistent with a recent AAMC report.[20] However, in terms of promotion and tenure decisions, chairs seem to place higher value on clinical and research scholarship when compared with educational scholarship.[15] The recent publication of the consensus conference on educational scholarship brings increased attention to the role of standards for medical education activities.[5] This document primarily aims to encourage academic recognition for faculty engaged in the scholarship of teaching. Applying the traditional criteria of peer review, originally designed for print materials, may not suffice for new educational technologies; the peer review of technology-based scholarship may require special attention to usability, navigation, interactivity, and delivery.[21] The widespread lack of familiarity in academia with innovative educational technologies may harm the promotion chances for clinician–educators dedicated to the creation of e-learning resources or activities. A majority of the responses in this survey indicated that most U.S. medical schools did not offer training to members of promotion and tenure committees regarding the recognition of other forms of scholarship. In schools where training did occur, we did not examine whether their curricula addressed new forms of scholarship, such as e-learning; such an omission would represent an important barrier to the recognition of e-learning as evidence of scholarship. Training of promotion and tenure committee members would address the fundamental tenets of scholarship and the way in which the institutional criteria and standards would apply to nontraditional forms of scholarship, such as e-learning.

Promotion chairs seem receptive toward the introduction of e-learning as evidence of scholarship in teaching. Three quarters of responding promotion chairs were willing to recognize e-learning as a form of educational scholarship. A recent survey of individuals affiliated with educational technology units at U.S. medical schools revealed that 58% of respondents' schools recognize digital scholarship.[22] These numbers are a significant improvement over Bader's[23] 1993 study in which only 11% of schools granted scholarly recognition for clinician–educators involved in e-learning. Bader's study, however, consisted of a complete review of each medical school's promotion and tenure policies and other documents; it did not include an examination of promotion chair attitudes. We also need to consider as a factor the introduction of newer educational technologies since Bader's publication 15 years ago. In our survey, obtaining grants and publishing in peer-review journals received the most enthusiastic endorsements, similar to the currency of traditional forms of scholarship. This finding may demonstrate that promotion committees evaluate the scholarly contributions of educators in the same way they evaluate the contributions of traditional researchers.[15] Leadership positions in entities where e-learning is a core activity also received an acceptable recognition from chairs. The findings that almost two thirds of promotion chairs were not entirely in agreement with a demonstration of a favorable change in learner outcomes and/or the creation and dissemination of e-learning materials are important lessons for educators involved in these diverse forms of e-learning. Bader,[23] in reviewing promotion and tenure polices in medical schools, found that 64% of medical schools considered computer-based materials as a meaningful contribution to teaching, but not as necessarily scholarship. These activities and resources are indeed important aspects of teaching and learning, but they are not by themselves evidence of educational scholarship unless they undergo a rigorous peer review.[4,24]

How promotion chairs regard the evaluation of e-learning resources or activities reflects the primacy of the peer-review process and its role in determining educational scholarship. In this respect, e-learning is no different from other forms of educators' scholarly output.[25] Promotion chairs rated highly the documentation of peer review by colleagues and the publication of materials in national peer-reviewed repositories of medical e-learning materials. Digital repositories that incorporate a peer-review process for acceptance of e-learning resources may

offer the single most important venue for clinician–educators seeking recognition for their involvement with innovative educational technologies. The incorporation of e-learning products into the curriculums of other medical schools also received highest ratings, consistent with Bader's[25] finding that upheld the value of external peer review. On the other hand, respondents did not significantly recognize evaluations from faculty and students as evidence of educational scholarship. This lower appreciation contrasts with the abundant evidence demonstrating that student evaluations are reliable and valid indicators of teaching effectiveness.[26–28] A recent consensus conference on educational scholarship recognized peer faculty evaluations as legitimate evidence of scholarship of teaching.[5]

Compared with clinical or research scholarship, promotion chairs did not uniformly value the contribution of educational scholarship. These results are consistent with those of other authors.[29] The reasons for this disparity may include a lack of knowledge and misconceptions regarding the products of educational scholarship. Lack of familiarity with educational scholarship is a frequent finding in this survey and may represent an important barrier to attaining clinician–educators' promotion or tenure. The recent educational scholarship consensus publication regarding components and criteria for advancement of clinician–educators is an important step in the right direction.[5] A more difficult problem is the apparent resistance among medical school faculty to accept educational scholarship, including e-learning, even when it has undergone peer review. These faculty and institutional attitudes may prove a formidable challenge for those faculty members involved in e-learning. The perception that e-learning materials are easy to create is particularly problematic. The inclusion of educators dedicated to the use, creation, and evaluation of e-learning materials on promotion committees is another potentially effective strategy. The AAMC MedEdPORTAL policy of periodically notifying medical school deans of their faculty members' successful peer review of submitted e-learning resources may be another effective approach. Training department chairs and members of promotion committees on the criteria for reviewing educational technology and e-learning activities may be an effective way to address knowledge deficits and attitudinal issues. Finally, a compelling strategy for demonstrating genuine institutional commitment to recognizing e-learning may be through the institution's decision to develop policies and criteria for evaluation of e-learning products. In this survey, chairs' comments revealing an absence of guidelines and policies related to e-learning scholarship may represent another barrier for promotion of clinician–educators involved in e-learning. One such policy may state that medical educators considering promotion can submit their e-learning activities and products to promotion and tenure committees as part of their teaching portfolios. These portfolios, which are traditionally submitted in hard copy, may consist of educators' e-learning works such as links to Web-based materials, educational software, online curricula, or virtual patients—components which are better submitted in electronic format as electronic portfolios.[30]

Limitations of this survey include a response rate just over 50%, lower than the optimal response rate of 60% to 80%. In addition, the view of promotion chairs may not represent the views of the other members of the committee or medical school administrators. Although we provided a definition of e-learning, the concept is still ill defined and may be a source of confusion. We presented the promotion chairs with an outline of specific resources and activities in e-learning that could represent evidence of scholarship. Chairs may have difficulty discerning the contributions of specific materials or resources without the benefit of facing specific examples. Others have proposed the use of case scenarios to facilitate understanding of the abstract concept of educational scholarship.[5,31,32]

In conclusion, our survey reveals important findings for clinician–educators actively involved in the development, use, and evaluation of e-learning materials and educational technology, for those who support them, and for faculty and administrators who appraise faculty during the promotion and tenure process. We need additional research on how the opinions of chairs actually translate into policies that consider the contribution of e-learning to educational scholarship and the perceptions of faculty about whether their involvement in e-learning activities results in recognition and promotion.

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## Appendix

Questionnaire Administered to Chairs of Faculty Promotions Committees at 123 U.S. Medical Schools in 2007

Dear Promotions Committee Chair:

We are conducting a survey to determine how academic work in the area of e-learning in medical education by clinician educators is viewed by promotions committees. **E-learning refers to the use of Internet technologies to deliver a broad array of solutions that enhance knowledge and performance.** E-learning is sometimes called web-based learning, online learning, distributed learning, computer-assisted instruction, or internet-based learning. The results of this survey can assist in the development of future guidelines to promotion and tenure committees that can better inform them with objective criteria to make more informed decisions.

Please take a moment to answer the 23 questions below. This survey should take you no more than 15 minutes to complete.

After you have completed this questionnaire, please mail it (in the envelope provided) to E-Learning Survey, Stein Gerontological Institute, 5200 NE 2nd Ave, Miami FL 33137. Or you may fax the completed questionnaire to (305) 762-1472, or e-mail it to (survey@geriu.org).

Thank you for your participation.

**Promotions Board**

1. Does your institution have a **clinician educator track** for faculty?

O Yes
O No

2. If 'Yes', does your clinician educator track **offer tenure**?

O Yes
O No

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3. Does your committee accept or require some form of **educational/teaching portfolio** as part of the clinician educators' track supporting documentation?

- O Educational/teaching portfolios are required
- O Educational/teaching portfolios are accepted but not required
- O Educational/teaching portfolios are not accepted

4. Are your faculty members required to demonstrate some performance benchmark as defined by your institution, in teaching as one of the missions?

- O Yes
- O No

5. Does your institution offer any kind of **training** (e.g. Workshops, seminars) for promotion committee members?

- O Yes
- O No

6. How large is your medical school (in terms of class size)?

- O 1-74 students
- O 75-150 students
- O 151-200 students
- O 200+ students

7. What's the **composition and scope** of your promotion committee? (check all that apply)

- O Medical School faculty ONLY (MD and PhD)
- O Health Sciences faculty (In addition to medical school – nursing, PA, social work, etc)
- O University wide (Other schools and colleges within the host University)

**Evaluation of Candidates**

| | Most Important | Considerably Important | Moderately Important | Slightly Important | Not Important |
|---|---|---|---|---|---|
| 8. How important is **performance as an educator** to a candidate's chances of promotion? | O | O | O | O | O |
| 9. How important is **educational scholarship*** to a candidate's chances of promotion? | O | O | O | O | O |
| 10 How important is **clinical scholarship and research** to a candidate's chances of promotion? | O | O | O | O | O |

*Educational scholarship refers to any material, product or resource originally developed to fulfill a specific educational purpose that has been successfully peer-reviewed and is subsequently made public through appropriate dissemination for use by others.

If your institution/committee does NOT recognize e-learning as a meaningful contribution to scholarship then skip to question 23

For each activity below, please indicate how much importance it is given in the evaluation of the candidate as an educator.

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| | Most Important | Considerably Important | Moderately Important | Slightly Important | Not Important |
|---|---|---|---|---|---|
| 11 Demonstrating that e-learning had a favorable change in **learner performance/outcomes** | ○ | ○ | ○ | ○ | ○ |
| 12 Designing, developing, and disseminating **e-learning materials** | ○ | ○ | ○ | ○ | ○ |
| 13 Authoring **publications on creation and use** of e-learning (Journal articles, Book chapters/review articles) | ○ | ○ | ○ | ○ | ○ |
| 14 Receiving **grant awards** for development of and/or research on e-learning | ○ | ○ | ○ | ○ | ○ |
| 15 Serving on **editorial boards, review bodies, or in elected positions** of medical e-learning groups and repositories | ○ | ○ | ○ | ○ | ○ |
| 16 **Directing a program, center, institute or laboratory** for medical e-learning | ○ | ○ | ○ | ○ | ○ |

**Evaluation of E-Learning Resources (or Activities) as Scholarship**

Which of the following measures of scholarship would your committee use when considering a candidate for promotion? Please rate each of the indicators below according to its strength in indicating the quality of the candidate's performance at the design and development of e-learning resources (or activities).

**Scholarship:** a continuum of activities interconnecting discovery, integration, teaching and application.

| | Excellent | Good | Fair | Inadequate | Bad |
|---|---|---|---|---|---|
| 17 Evaluation by **peers (e.g. peer review)** | ○ | ○ | ○ | ○ | ○ |
| 18 Evaluation and feedback from **students and other instructors/faculty** | ○ | ○ | ○ | ○ | ○ |
| 19 Publication of materials in a **national peer-reviewed repository** of medical e-learning materials (such as MedEdPORTAL) | ○ | ○ | ○ | ○ | ○ |
| 20 Documented **incorporation of e-learning product** within other medical schools curriculums | ○ | ○ | ○ | ○ | ○ |

**Role of Educational Scholarship**

21 Do you feel that your institution value clinical or research scholarship more than educational scholarship as part of promotions and tenure decisions?

○ Yes

○ No

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22 If 'Yes', what factors are likely responsible for this difference? (mark all that apply)

- O Institutional culture not supportive of educational scholarship.
- O Lack of familiarity regarding how educational scholarship may be evaluated.
- O The fact that most educational scholarship is not peer reviewed.
- O Educational scholarship, even if peer reviewed, is still new and not widely accepted.
- O Other (please specify):

_____

**Additional Comments**

23 Please add any comments you have regarding the role of e-learning and educational scholarship at your institution.

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## THANKS

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Teaching and Learning Moments

## Pain Overlooked – Imperfect Technology

As always, I review his chart before I meet him. What a fantastic computerized medical record system . . . instant access, point-of-care information, making what we do safer, more efficient and complete. Whoa, quite an extensive record since his motorcycle accident. Months later, 188 separate entries. Many fractures. Many details. Intervening months, dozens of clinic visits. . . . Today, he returns for L2 kyphoplasty. Persistent pain since his accident. PRN Lortab. Small incision, prone, straightforward.

Holding room slot one. We shake hands. He appears his age of 57 years. Friendly, affable, appears well five months later. "Looks like you've had quite a rough time since the summer. How's your recovery coming along?" I inquire with empathy. I select words carefully, hoping that, in our brief minutes, I will connect. If he detects my effort to know his important details, he might infer that I care, or at least that I'm trustworthy and competent.

"Oh, it's coming along," he slowly nods, his gaze suddenly distant. "How's the pain been?" I attempt to engage him. He returns, realizes I'm referring to his orthopedic injury, "Oh. My back. I'm managing. But it's been difficult." "Oh?" I sense something more.

"I wasn't alone when I crashed. My wife was with me," he pauses. "The next day was our 29th wedding anniversary. That's the day she died."

I draw closer, the paperwork in my hands drops away from this sacred moment. I can't find a single word. I look into his eyes, and manage a whisper, "I'm so sorry."

He gazes away, "Strange thing is that my daughter arrived at the scene right after it happened. I heard her, 'That's my Daddy! And that's my Mama!'" "How was it that she was there?" I'm incredulous at the enormity of it. He looks at me, "She lives in the same town, just happened to be driving by." "My God . . ." I'm overwhelmed. "How's she doing?"

"Not well." His face looks exactly like the worst kind of suffering would look. "She doesn't talk about it, but I know she's having a real tough time."

"Is she getting any help?" "I don't think so." Has this tragedy torn them apart? Is his suffering doubled, from the pain of his loss and the guilt of taking his daughter's mother from her? "There are people who can help you and her through this . . ."

After leaving that moment, I reflect on the privilege of this work, the space I'm allowed to enter, to hear him, to be present. But, I'm uneasy, bothered by the fortuity that should not have been. Granted, I made a smooth recovery, but I bumbled into his world. I should have known. I reviewed his records; how did I miss the only detail that matters in his life right now?

I return to his records to seek my error. I scrutinize the entries. . . . There it is!

> Entry # 42 – Discharge summary, a hidden sentence provides a clue: "recommend brief inpatient rehab, but patient requests home health PT/OT to attend his wife's funeral."
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> Entry #132 – "Incoming Correspondence," third paragraph: "Patient having difficult time handling depression issues from accident. Has taken himself off antidepressants a few times only to experience extreme grief. Suggested psychological intervention, but patient resistant to this option at this time."

I cut myself some slack, just a little. The information is there, but so deeply buried. And, I'm only human, I rationalize. But this system is mine, too. I can't help but accept some responsibility. I amend the "social history" hoping that someone, sometime, will read it and be moved to work towards this man's healing.

> Social History: The motorcycle accident occurred on Jun 8. His wife died the next day. It was their 29th wedding anniversary.

**Michael G. Richardson, MD**

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