

# More Than Likes and Tweets: Creating Social Media Portfolios for Academic Promotion and Tenure

Daniel Cabrera, MD  
Bryan S. Vartabedian, MD  
Robert J. Spinner, MD

Barbara L. Jordan, MA  
Lee A. Aase, BS  
Farris K. Timimi, MD

One of the foundations of modern medicine is academic output, which is part of the mission to advance biomedical science. This is accomplished through 3 different tracks: clinical practice, research, and education.<sup>1</sup> Career advancement and tenure are structured around scholarly work in these 3 domains. Some have noted that research activities are considered the most influential for promotion, and the merits and drawbacks of research-focused versus education-focused career tracks have been discussed in the literature.<sup>2,3</sup>

## Current State of Promotions and Tenure in Academic Medicine

In the current system, academic promotion and tenure committees are the entities charged with ensuring that scholarly work is concordant with the culture and policies of their institutions, and is meritorious and consistent with scientific standards. Committees use recognition models, based on publication metrics, grant funding, and research output. In the past 20 years, these committees have embraced novel benchmarks and paths to promotion.<sup>3</sup> Scholarly work on education, administrative leadership, innovation, quality improvement, and outreach has been recognized as worthy of career advancement.<sup>3</sup>

In early 2016, the Mayo Clinic Academic Appointments and Promotions Committee began including digital and social media scholarship among the criteria considered in review of proposals for academic advancement. Here, we discuss a framework to incorporate social media scholarship into academic promotion and tenure systems.

## Social Media and Academic Scholarship

Social media includes digital and electronic platforms hosted on the Internet that allow for the creation, distribution, curation, and collaboration of content

that is archived and measured. The majority of content is generated by the users and is publicly available.<sup>4</sup> This allows information to be created and exchanged in multiple formats in either explicit groups (eg, forums) or implicit communities.

A characteristic of social media is the provision of robust and specific data on users and their utilization of the content through built-in tools for analysis. This creation and distribution of information by users has increased the accessibility of data, leading to the establishment of free open-access data warehouses, like Wikipedia,<sup>5</sup> or innovative new legal frameworks for this work, such as the Creative Commons license.<sup>6</sup> The democratization of media and the capacity to generate and share knowledge in spaces other than traditional journals creates a new challenge for those charged with determining the value of scholarly work.

In the medical realm, the open knowledge movement—using novel self-publication platforms such as blogs—has promoted fast, focused, and immense dissemination of scientific information.<sup>7,8</sup> The technical requirements and costs of publishing in blogs or social networks are relatively minimal, and the medium allows for rapid distribution. These new capabilities launched recent trends, such as the Free Open Access Medical Education movement, which are characterized as a loose network of health care professionals organized around social media platforms and dedicated to the creation, curation, and dissemination of free medical education where all participants collaborate in a flat hierarchy network.<sup>9</sup>

As a response to the traditional impact-based system, a new set of tools has emerged. The core concept of alternative metrics<sup>10</sup> is that the impact of science is measured not only by how many scholars cite the work but also by how many times the work is actually seen, read, and discussed in the news, magazines, and journals; shared via social media; downloaded and bookmarked; and overall how the work affects society inside and outside of academic circles.<sup>11</sup> Alternative metrics provide an article-level assessment of impact and probably represent a better

DOI: <http://dx.doi.org/10.4300/JGME-D-17-00171.1>

**BOX 1** Key Points

- Social media is a new space for academic medicine that has enormous possibilities for research, education, clinical care, and dissemination of health care science.
- Institutions are starting to recognize social media scholarship as significant and meritorious and to include it when an academic is being considered for promotion and tenure.
- Academics are encouraged to create and maintain social media portfolios to document the impact and quality of their digital scholarship.
- Institutions are recommended to develop clear impact grids and appraisal methods.

estimation of the significance of the scholarly work. Currently, several academic journals track and display this score for their articles, acknowledging the emergent importance of this benchmark.<sup>10</sup>

The greatest challenges and limitations for promotion and tenure committees entail assessing the quality and the impact of scholarly work using social media.<sup>12,13</sup> Social media has the potential to deliver insights regarding access and distribution, and the problem of quality and impact can be assessed with the Glassick framework, the concept of social media portfolios, and the use of a structured scholarship definition.<sup>14</sup>

**BOX 2** Best Practices Recommendations for Implementing Social Media and Digital Scholarship for Academic Promotion and Tenure**Academic institutions and health care systems should:**

- Develop clear guidelines governing activity of faculty members on social media<sup>15</sup>
- Provide training on the appropriate use of social media in health care and academia
- Develop explicit core values, strategic priorities, and target objectives
- Develop an institution- and scholarship-specific appraisal framework based on:
  - Size of the institution (eg, large academic center versus small community practice)
  - Alignment with strategic priorities
  - Target audience (eg, general public versus academics)
  - Relative size of the academic field
  - Relative size of the digital platform
- Develop a clear impact grid identifying the types of social media activities considered for academic tenure (see example in BOX 3)
- Assess the quality and the impact of scholarship on the basis of:
  - Metrics (eg, page views)
  - Objective criteria
  - Peer review of the work

**Scholars should:**

- Abide by institutional guidelines
- Create a social media scholarship portfolio, which should include:
  - A social media scholarship philosophy
    - Academic niche
    - Audience
    - Objective (eg, knowledge translation, outreach)
    - Platforms
  - A clear description of how social media scholarship aligns with the overall career development plan of the academic
  - Description of social media activity in all of its aspects
    - Original content creation
    - Curation of content
    - Community management
    - Platform administration
    - Data analysis
    - Durable record of scholarship (eg, permalinks, cached content, or physical copies)
  - Description of scholarly work using Glassick's framework<sup>14,16</sup>
    - Clear goals
    - Adequate preparation
    - Appropriate methods
    - Significant results
    - Effective presentation
    - Reflective technique

## Incorporating Social Media Scholarship in Academic Promotion and Tenure

Academic and clinical institutions have an interest in creating a social media presence. In the digital era this constitutes a key component of knowledge dissemination, institutional outreach, branding, and communication management.<sup>17</sup> Considering the role of social media in academia (BOX 1), institutions should create guidelines governing and informing faculty behavior in this new medium.<sup>15</sup> At the same time, these bodies should provide training and guidance about social media activities (BOX 2).

Promotion and tenure committees should use an explicit set of guidelines describing the types of social media activities that will be considered for career advancement, and the metrics that will be used to appraise the work. An illustrative but generic example is described in BOX 3. It highlights the difference between works published in traditional platforms with long-term permanency through the use of digital object identifiers (DOIs); different

**Box 3** Example of an Impact Grid for Assessing Social Media Scholarship**Low impact:**

Editor-in-chief (or major editorial duties) of an academic or clinical blog with more than 2000 page views per month over a calendar year

Editor-in-chief (or major editorial duties) of an academic or clinical podcast/vodcast with more than 2000 downloads/views per month over a calendar year

Top 5% influencers in health care–related digital communities using primary or third-party analytics

Author of a blog post, article, or media piece with more than 3000 views with no DOI

Author of a blog post, article, or media piece with more than 1000 views with DOI

**Medium impact:**

Editor-in-chief (or major editorial duties) of an academic or clinical blog with more than 5000 page views per month over a calendar year

Editor-in-chief (or major editorial duties) of an academic or clinical podcast/vodcast with more than 5000 downloads/views per month over a calendar year

Editor-in-chief, chief content officer, or manager of a social media network with more than 10 000 active users

Author of a blog post, article, or media piece with more than 15 000 views with no DOI

Author of a blog post, article, or media piece with more than 7500 views with DOI

**High impact:**

Editor-in-chief (or major editorial duties) of an academic or clinical blog with more than 20 000 page views per month over a calendar year

Editor-in-chief (or major editorial duties) of an academic or clinical podcast/vodcast with more than 20 000 downloads/views per month over a calendar year

Editor-in-chief, chief content officer, or manager of a social media network with more than 50 000 active users

Abbreviation: DOI, digital object identifier.

types of media (eg, blogs, videos); potential roles (eg, editors, content producers); and the importance of analytics for publications (eg, altmetrics, page views). For individuals in an academic environment, it is imperative to demonstrate the quality and impact of their social media scholarship. This should be focused on patient education, advocacy, epidemiology, research, or health care professions education.<sup>18,19</sup> Recently, Sherbino et al<sup>16</sup> described a consensus for the components of social media scholarship in health care professions education that comprehensively details the attributes of high-quality products (BOX 4).

We propose the use of Glassick's model for scholarship evaluation<sup>20</sup> and the framework of

**Box 4** Consensus Statement on Defining and Evaluating Social Media–Based Scholarship**Definition:**

Social media–based scholarship in health professions education must:

- Be original
- Advance the field of health professions education by building on theory, research, or best practice
- Be archived and disseminated
- Provide the health professions education community with the ability to comment on and provide feedback in a transparent fashion that informs wider discussion

**Process:**

Criteria for authorship should be based on the standards established by the International Committee of Medical Journal Editors

**Impact on the education community:**

Evidence of transparent critical appraisal is required for social media–based scholarship in health professions education

Scholarly innovations have the potential to affect the health professions education community and others in a rapid and/or broad fashion

Although intellectual property must be preserved, scholarly innovations should be made as accessible as possible

**Impact on scholars:**

Indicators, including alternative metrics, should be captured and analyzed to demonstrate the dissemination and impact of social media–based scholarship

The health professions education community should champion social media–based scholarship as a legitimate academic pursuit

Note: Adapted with permission from Sherbino et al.<sup>16</sup>

portfolios.<sup>21,22</sup> Both are already utilized by clinical teachers for academic recognition. Using Glassick's framework, scholars will describe their work in terms of clear goals, adequate preparation, appropriate methods, significant results, effective presentation, and reflective technique (BOX 2).

The components of these social media portfolios are adapted from existing frameworks<sup>14,21,22</sup> that are currently accepted for education-based academic appraisal (BOX 2). For success, it is critical to identify an academic social media niche in terms of field, scope, and platform (eg, a “parasitology case of the week” based in a blog and aimed at fellow-level parasitologists), as well as a plan on how the social media scholarship fits with the career plan of the individual academic. In the portfolio, faculty will need to provide a description of their activities in every aspect of social media, including content creation, curation, community management, administration, analytics, and research. It is important to ensure that the documentation of these activities is

consistent with scholarship criteria and activity in the field.

Career advancement based on social media should progress when the scholar creates a portfolio demonstrating a niche, quality throughput, and impact, followed by the recognition from promotion and tenure committees that this portfolio is in line with the institutional mission, of high quality, and consistent with the appraisal guidelines.

## Conclusion

The role of scholars is changing with the rapid emergence of social media. The recognition and promotion of these new areas of scholarship represent a paradigm change.<sup>13,23,24</sup> As more faculty members participate in this area, it is important for their institutions to guide and reward these activities. Universal recommendations about how to promote social media work present a challenge, but the development of local institutional frameworks, as well as the creation of social media portfolios, appears to be a promising model for the use of this type of scholarship in advancement and tenure.

## References

- Dzau VJ, Ackerly DC, Sutton-Wallace P, et al. The role of academic health science systems in the transformation of medicine. *Lancet*. 2010;375(9718):949–953.
- Block SM, Sonnino RE, Bellini L. Defining “faculty” in academic medicine: responding to the challenges of a changing environment. *Acad Med*. 2015;90(3):279–282.
- Atasoylu AA, Wright SM, Beasley BW, et al. Promotion criteria for clinician-educators. *J Gen Intern Med*. 2003;18(9):711–716.
- Boyd DM, Ellison NB. Social network sites: definition, history, and scholarship. *J Comput Mediat Commun*. 2007;13(1):210–230.
- Rush EK, Tracy SJ. Wikipedia as public scholarship: communicating our impact online. *J Appl Commun Res*. 2010;38(3):309–315.
- Creative Commons. About the licenses. <https://creativecommons.org/licenses>. Accessed May 26, 2017.
- Young PJ, Nickson CP, Gantner DC. Can social media bridge the gap between research and practice? *Crit Care Resusc*. 2013;15(4):257–259.
- Eytan T, Benabio J, Golla V, et al. Social media and the health system. *Perm J*. 2011;15(1):71–74.
- Nickson CP, Cadogan MD. Free open access medical education (FOAM) for the emergency physician. *Emerg Med Australas*. 2014;26(1):76–83.
- Chisolm MS. Altmetrics for medical educators. *Acad Psychiatry*. December 9, 2016. Epub ahead of print.
- Priem J, Groth P, Taraborelli D. The altmetrics collection. *PLoS One*. 2012;7(11):e48753.
- Gruzd A, Staves K, Wilk A. Tenure and promotion in the age of online social media. *Proc Am Soc Inf Sci Technol*. 2011;48(1):1–9.
- Mangold WG, Faulds DJ. Social media: the new hybrid element of the promotion mix. *Bus Horiz*. 2009;52(4):357–365. <http://isiarticles.com/bundles/Article/pre/pdf/190.pdf>. Accessed May 26, 2017.
- Glassick CE. Boyer’s expanded definitions of scholarship, the standards for assessing scholarship, and the elusiveness of the scholarship of teaching. *Acad Med*. 2000;75(9):877–880.
- Sharing Mayo Clinic. For Mayo Clinic Employees. <http://sharing.mayoclinic.org/guidelines/for-mayo-clinic-employees>. Accessed May 26, 2017.
- Sherbino J, Arora VM, Melle E, et al. Criteria for social media-based scholarship in health professions education. *Postgrad Med J*. 2015;91(1080):551–555.
- Hawn C. Take two aspirin and tweet me in the morning: how Twitter, Facebook, and other social media are reshaping health care. *Health Aff (Millwood)*. 2009;28(2):361–368.
- Priem J, Piwowar HA, Hemminger BH. Altmetrics in the wild: an exploratory study of impact metrics based on social media. <http://jasonpriem.org/self-archived/PLoS-altmetrics-sigmetrics11-abstract.pdf>. Accessed May 26, 2017.
- Lin M, Thoma B, Trueger NS, et al. Quality indicators for blogs and podcasts used in medical education: modified Delphi consensus recommendations by an international cohort of health professions educators. *Postgrad Med J*. 2015;91(1080):546–550.
- Gusic ME, Baldwin CD, Chandran L, et al. Evaluating educators using a novel toolbox: applying rigorous criteria flexibly across institutions. *Acad Med*. 2014;89(7):1006–1011.
- Simpson D, Fincher RM, Hafler JP, et al. Advancing educators and education by defining the components and evidence associated with educational scholarship. *Med Educ*. 2007;41(10):1002–1009.
- Thoma B, Chan TM, Sanders JL, et al. Online portfolios: the curriculum vitae 2.0. *CJEM*. 2014;15(suppl 1):111.
- Klein M, Niebuhr V, D’Alessandro D. Innovative online faculty development utilizing the power of social media. *Acad Pediatr*. 2013;13(6):564–569.
- Gholami-Kordkheili F, Wild V, Strech D. The impact of social media on medical professionalism: a systematic

qualitative review of challenges and opportunities.  
*J Med Internet Res.* 2013;15(8):e184.



**Daniel Cabrera, MD**, is Assistant Professor of Emergency Medicine, Mayo Clinic, Rochester; **Bryan S. Vartabedian, MD**, is Assistant Professor of Pediatrics, Baylor College of Medicine; **Robert J. Spinner, MD**, is Professor of Neurological Surgery, Orthopedics, and Anatomy, and Chair of Academic Appointments and Promotions Committee, Mayo Clinic, Rochester; **Barbara L.**

**Jordan, MA**, is Administrator, Academic Appointments and Promotions Committee, Mayo Clinic, Rochester; **Lee A. Aase, BS**, is Director of Mayo Clinic Social Media Network, Mayo Clinic, Rochester; and **Farris K. Timimi, MD**, is Assistant Professor of Cardiology, Mayo Clinic, Rochester.

The authors would like to thank Mayo Clinic Scientific Publications for their provision of technical support.

Corresponding author: Daniel Cabrera, MD, Mayo Clinic, Emergency Medicine, 200 First Street SW, Rochester, MN 55905, 507.255.4399, [cabrera.daniel@mayo.edu](mailto:cabrera.daniel@mayo.edu)