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# THE GEORGE WASHINGTON UNIVERSITY

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WASHINGTON, DC

## Digital Scholarship

### Definition

For purposes of The George Washington University School of Medicine & Health Sciences (SMHS) Appointments, Promotion, and Tenure (APT) process, digital scholarship is defined as scholarly activity that exclusively utilizes digital tools to create, share, disseminate and advance scientific knowledge. This digital scholarship must be original, openly accessible, inclusive, collaborative, archivable, and promote scholarly discourse.

### Rationale

Social media and other digital platforms are being increasingly used as academic tools to advance scholarly discourse and have influenced the conversation around the value of digital scholarship. The academic value of scholarly discourse should not discount the use of non-traditional methods for advancing scientific knowledge such as podcasts, blogs, and other social media platforms. As faculty members increasingly participate in digital scholarship, there is a need to recognize, measure, and reward their contributions commensurate with academic value to the individual and the institution. Quantifying digital scholarship with traditional metrics remains challenging. However, novel methods have emerged that leverage the tools enabled by digital technology to track users, usage, and engagement in a manner substantially different from traditional methods such as print publishing. This document articulates a structure for defining digital scholarship within the academic framework of the APT process at SMHS.

### Principles

The foundational principles of digital scholarship align with the SMHS values across the spectrum of scholarship. As with traditional scholarship, the work cited within the area of digital scholarship must also be defined by its **impact** and **quality**. While no standard metrics have been widely adopted we consider the metrics described by Sherbino et al and others essential as a basis for the inclusion of digital scholarship as part of a promotion portfolio.

Demonstrate Scholarship Criteria (from Sherbino et al)

- Original content
- Advances the field of medicine and/or health sciences, building on theory, research or best practice
- Archived and disseminated
  - consider providing evidence of archival and dissemination, such as Google Scholar indexing or inclusion of a digital object identifier (DOI)
- Provides the health professions community the ability to comment on and transparently provide feedback that informs wider discussion

Summary of metrics used to demonstrate digital scholarship, impact, role and quality with sample scholarly work.

Promotion metric	Supporting data	Example with metrics
<p>Impact Demonstration of impact shows your work reaches your intended audience</p>	<p>Page views Time Spent on Page Likes Impressions Dissemination (Shares) Unique users Geographic reach Followers on Professional Social Media Accounts Social Media Index Digital Object Identifier (DOI) Alexa Ranking Altmetrics</p>	<p>Thoma B, Chan T, Benitez J, Lin M. Educational Scholarship in the Digital Age. A Scoping Review and Analysis of Scholarly Products. <i>The Winnower</i>. 2014. Doi:10.15200/win.141827.77297</p> <p>Pageviews 4137 Altmetric Score 61 202 Tweets from 86 users, with an upper bound of 263,362 followers</p>
<p>Role Demonstration of your “brand” or role within digital scholarship helps explain your area of expertise</p>	<p>Editor Author Curator Reviewer Invited Commentaries Podcast Guest or Editor</p>	<p>[Invited Commentary] Berg A, Weston V, Gisondi MA. Journal Club: Coronary CT Angiography Versus Traditional Care. NUEM Blog. <a href="http://www.neumblog.com/blog/cta-for-chest-pain/Published">http://www.neumblog.com/blog/cta-for-chest-pain/Published</a> online 4/12/16</p>
<p>Quality While also demonstrating commitment to scientific rigor in your work, you may also highlight novel quality assurance methods unique to digital scholarship</p>	<p>METRIQ-5 and -8, rMETRIQ ALiEM AIR Score Social Media Index (SMi) The Quality Checklists for Health Professions Blogs and Podcasts</p>	<p>[Peer-reviewed blog] Long,B. “Myths in Heart Failure: Part 1-ED Evaluation” emDOCS.net <a href="http://www.emdocs.net/myths-in-heart-failure-part-1-ed-evaluation/published">http://www.emdocs.net/myths-in-heart-failure-part-1-ed-evaluation/published</a> online 7/23/2018.</p> <p>Selected as ALiEM AIR Cardiovascular, Non-ACS module 2019. This post was deemed to be of an acceptable score within the ALiEM AIR Scoring tool, and was granted the designation “AIR Approved” by the adjudicating group of educators. There is a second tier below, known as “honorable mention” for posts of moderate quality that did not meet the threshold for inclusion.</p>

## Additional examples

### Suggested impact grid:

Role	Low impact	Medium impact	High impact
Editor-in-chief, clinical blog	2-5K page views/month x 1 year	5-50K page views/month X 1year	>20K page views/month x 1 year
Editor-in-chief, A/V podcast	2-5K downloads/month over 1 year	5-20K downloads/month over 1 year	>20K downloads/month over 1 year
Author-blog post, article (no DOI)	3-15Kviews	>15K views	>30K views
Author-blog post, article (w/DOI)	1-5K views	5-10K views	>10K views
Learning platform	Contributor: 1-10 lectures	Host with >20 lectures in up to 10 modules	Platform director with >20 modules
Healthcare social media network: Editor, content manager, host	Up to 10K active users	10-50K active users	>50K active users

Adapted from Cabrera et al. DOI=Digital Object Identifier

### Suggested documentation:

#### 1. Twitter Journal Club

Thamman, R. Moderator, American Society of Echocardiography Twitter Journal Club on ASE Statement on POCUS during COVID-19. April 21, 2020. #ASEchoJC; 4.6M impressions with 872 tweets during the 48 hours of discussion. Top influencer: data available at <https://bit.ly/3bVAEhk>; accessible on <https://www.symplur.com/healthcare-hashtags/>. Twitter URL: <https://twitter.com/iamritu>

#### 2. Social media editor

Thamman, R. Social media editor, Circulation, Cardiovascular Quality and Outcomes-Journal of the American Heart Association. Goal: To disseminate and promote discussion on new publications of interest to the cardiovascular medicine community. 186K Facebook followers (@CircAHA – parent journal). 12.4K Twitter followers (@CircOutcomes).

#### 3. Blog post

Nicholson, T. Lead author: The neurology and neuropsychiatry of COVID-19. Hosted by the Journal of Neurology, Neurosurgery and Psychiatry from the British Medical Journal. Available at <https://blogs.bmj.com/jnnp/2020/05/01/the-neurology-and-neuropsychiatry-of-covid-19/>. Published May 21, 2020. Page views >21,000; Alexa website rank = 6,402. Social Media Index score = 7.37.

#### 4. Learning Platform

Bottiger, B. Cardiothoracic anesthesia virtual education portal. Program director, Adult Cardiothoracic Anesthesiology Fellowship. Portal hosted by Duke Anesthesiology. Available at [https://anesthesiology.duke.edu/?page\\_id=821021](https://anesthesiology.duke.edu/?page_id=821021). Supervision of education portal for CT Anesthesiology with more than 60 educational audio-visual items including didactic recordings, accessible within the Duke firewall only for current Duke Anesthesiology trainees. Assessment and evaluation performed through MedHub. 5. Healthcare Influencer Doe, J. Healthcare Twitter user and contributor. Hashtags #medtwitter, #cardiotwitter, #FOAMed. Followers: > 15,000. Healthcare Social Graph Score = 96.2. Accessible at [www.twitter.com/jane](http://www.twitter.com/jane)

#### References

Sherbino, Jonathan; Arora, Vineet M; Van Melle, Elaine; Rogers, Robert; Frank, Jason R; Holmboe, Eric S. Postgraduate medical journal, 2015, Vol.91 (1080), p.551-555

Husain A, et al. Consensus Guidelines for Digital Scholarship in Academic Promotion. Western Journal of Emergency Medicine, 2020, Vol.21(4)

Cabrera D, Roy D, Chisolm MS. Social Media Scholarship and Alternative Metrics for Academic Promotion and Tenure. Journal of the American College of Radiology: JACR. 2018;15(1):135141.

Colmers-Gray IN, Krishnan K, Chan TM, et al. The Revised METRIQ Score: A Quality Evaluation Tool for Online Educational Resources. AEM Educ Train. 2019;3(4):387-392.

ALIEM. Social Media Index. <https://www.aliem.com/social-media-index/>. Published 2020. Accessed September 8, 2020.

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