Social Media in Pathology: Continuing a Tradition of Dialogue and Education

To the Editor.—Peedin and Karp's¹ recent editorial in the ARCHIVES raised important concerns about professionalism when using social media. Professionalism is central to physician identity and behavior. Ethical reflection, discussion, and collective monitoring of professional norms are the lifetime work of a physician. As active professional users of social media, however, we would like to offer a few comments.

Although we understand the authors are responding to a series of enthusiastic articles about social media, we nevertheless worry about the editorial's negative framing. Social media has become a dominant mode of human communication, likely one of the most rapid mass technological adoptions of all time.² This voluntary, decentralized implementation speaks to the value of this technology to its users. Rapid adoption, however, has also afforded less opportunity for ethical scholarship in this domain. Yet although all forms of human communication have unique aspects that must be considered, ultimately the end result is the same: transfer of knowledge and creation of social relationships. An editorial in a medical journal warning physicians of the professional risks of the printing press, for example, would appear comically out of place today. We suggest this risk-based framing of social media will look out of place in the near future.

Exploring the data cited by Peedin and Karp makes clear how well our profession is adapting to this innovative technology, even without widespread formal training. One study³ cited by the authors notes that reports of unprofessional social media use to medical boards are infrequent relative to overall complaints, and rather than being unique concerns, unprofessional online behaviors may be "manifestations of serious and common violations offline." Another article cited⁴ reported near-universal rating of posting "personally identifiable" patient information and/or case images as unprofessional. Although ethical guidelines and training may be helpful, we should not discount the good judgment of our colleagues.

The perspective that social media is unique but troublesome, rather than part of a continuum of human communication, is most relevant to the authors' discussion of sharing of pathology images. The authors suggest patient consent should be specifically obtained prior to sharing de-identified images on social media. When this suggestion is applied to fully deidentified microscopic images with limited case histories, which account for the vast majority of images shared by pathologists, it is unduly burdensome to place social media in this distinct legal and ethical category. Journal articles and textbooks are also public materials that can now be easily accessed online, yet explicit patient permission is not a standard requirement for using de-identified images in these media.⁵ By this standard, the majority of all existing pathology journal articles, textbooks, and lecture recordings would be deemed unethical as well.

All public media may cause inadvertent patient harm. Published case studies, for example, typically contain far more patient information than a short tweet (Twitter, San Francisco, California), increasing the risk that a patient may be identified. We personally know of patients who have been distressed to learn their case history had been published in a journal without explicit permission. We understand some patients may view publication on social media differently from publication in a journal, and these values should be respected. Yet patient preferences should be weighed against the value of widely accessible pathology knowledge. When previously published best practices in deidentification of pathology images are adhered to, a patient should not be able to definitively recognize his or her own case even if the patient encounters it on social media.⁵ Pathology education through social media can benefit innumerable patients on a global scale with minimal risk to patients.

We would also like to address Peedin and Karp's discussion of copyright. Copyright law is nuanced, and neither the original editorial's recommendations nor our response constitutes legal advice. Nevertheless, we feel the need to clarify this important point. The copyright of a photograph

typically belongs to the person who took it. An exception is "works made for hire."6 Photographs taken as a direct part of clinical work by the pathologist may fall into this category depending on the terms of employment contracts and institutional policies, and the copyright may be retained by the employer. However, with the ability to capture histologic images via mobile phone cameras, pathologists can easily acquire their own personal images off duty. Institutional copyright is not habitually asserted when pathologists use personally acquired, de-identified histologic images for textbooks, journals, and other publications whose source material originated at the author's place of employment. There is no reason to think social media operates by a distinct intellectual property standard.

Professionalism in medicine goes beyond merely following the letter of the law. All of us should engage in this ongoing conversation about how best to serve our patients using modern technology, and we thank the authors for their important contribution. We suggest continuing the discussion on social media, where pathologists from around the world can easily participate.

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^{1.} Peedin AR, Karp JK. Pathology and professionalism in the age of social media [published online

ahead of print December 18, 2017]. Arch Pathol Lab Med. doi:10.5858/arpa.2017-0467-ED.

2. Chui M, Manyika J, Bughin J, et al. The social economy: unlocking value and productivity through social technologies. McKinsey Global Institute Web site. https://www.mckinsey.com/~/ media/McKinsey/Industries/High%20Tech/ Our%20Insights/The%20social%20economy/ MGI_The_social_economy_Full_report.ashx. Published July 2012. Accessed January 29, 2018. 3. Greysen SR, Chretien KC, Kind T, Young A,

3. Greysen SR, Chretien KC, Kind T, Young A, Gross CP. Physician violations of online professionalism and disciplinary actions: a national survey of state medical boards. *JAMA*. 2012;307(11):1141–1142.

4. Brissette MD, Johnson KA, Raciti PM, et al. Perceptions of unprofessional attitudes and behaviors: implications for faculty role modeling and teaching professionalism during pathology residency. *Arch Pathol Lab Med.* 2017;141(10): 1394–1401.

5. Crane GM, Gardner JM. Pathology imagesharing on social media: recommendations for protecting privacy while motivating education. *AMA J Ethics*. 2016;18(8);817–825.

6. Works made for hire. Washington, DC: US Copyright Office; 2017. Circular 30. https://www. copyright.gov/circs/circ30.pdf. Accessed January 29, 2018.

Accepted for publication March 12, 2018.

The authors have no relevant financial interest in the products or companies described in this article.

doi: 10.5858/arpa.2018-0057-LE

Molecular Diagnostics in Pathology

To the Editor.—I congratulate Dr Matteo Fassan for his article in the Archives of Pathology & Laboratory Medicine (March 2018)¹ advocating a sweeping enhancement of pathology practice precipitated by the advancements in molecular pathologic science. This pattern is not new. From the late 20th century into the next, pathology has absorbed many disruptions of knowledge, complementing the advances in histopathology of the previous century. My own experience with the introduction of immunochemistry²⁻⁴ and immunopathology and the assessment of hormones and hormonal receptors² with radioassays from the 1960s and 1970s has shown me that new, critical knowledge is inherent in the pursuit of the practice of pathology. The pathologist is not complete without a respect for, and incorporation of, continuing learning as essential to her or his role in collaboration with clinicians. It is, in fact, a moral obligation in consideration of the dictum *Primum non nocere*.

The contribution of Dr Fassan deserves careful consideration and incorporation in both community pathology and academic center practices. It cannot be delayed.

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1. Fassan M. Molecular Diagnostics in pathology: time for a next-generation pathologist? *Arch Pathol Lab Med.* 2018;142(3):313–320.

2. Keffer JH. Hormone receptor assay and cancer of the breast: the pathologist's role [editorial]. *Am J Clin Pathol*. 1978;70(5):719–720.

3. Keffer JH. The economic aspects of new delivery options for diagnostic testing. In: Kost GJ, ed. Handbook of Clinical Automation, Robotics, and Optimization. New York, NY: John Wiley & Sons Inc; 1996:577–595.

4. Keffer JH. The cardiac profile and proposed practice guideline for acute ischemic heart disease. *Am J Clin Pathol.* 1997;107(4):398–409.

Accepted for publication April 9, 2018.

doi: 10.5858/arpa.2018-0151-LE