"Failing Up" on Social Media—Finding Opportunities in Moments of #Fail

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INTRODUCTION

Social media (SoMe) has been utilized for many years for medical education but has recently grown because of the increase in online learning during the coronavirus disease 2019 (COVID-19) pandemic. Several SoMe platforms are commonly used for online medical education (eg, Twitter [Twitter Inc, San Francisco, California], Instagram [Facebook, Inc, Menlo Park, California], Facebook [Facebook, Inc, Menlo Park, California]) [1-3]. Twitter has become popular among radiologists for medical education with obstacles occurring along the way. This article represents a collection of experiences from three neuroradiologists who use Twitter to disseminate case-based radiology education as part of institutionally approved curricula. In this article, we share advice for those interested in utilizing SoMe for medical education purposes, including experiences in which obstacles redefined our educational strategies, turning failures into opportunities for improvement.

GENERAL GUIDELINES

When utilizing SoMe for educational purposes, adherence to a few general guidelines can help avoid many issues. Of paramount concern is maintaining patient privacy per HIPAA [4]. The first step is to ensure that no patient information (eg, name, date of birth, medical record number) is embedded on the images included in the post. An additional step is to exclude the exact patient age, because doing so decreases the chance of the patient being identified. We advocate the use of general ages, such as "neonate," "young adult," "elderly," and so on. Additionally, if race or sex is not salient to highlighted pathology, it may be best to avoid mentioning.

Another general recommendation is to not post recent cases. The definition of "recent" is not exact. In our opinion, it is prudent to avoid posting cases that have occurred within the past few months. This is to decrease the chance that a patient could be identified based on timing. There is no need to include when exactly the patient presented for imaging, because it adds no value and may only increase the likelihood of a patient being identified. We have observed this issue occurring at other institutions, in which radiologists have posted a case online stating that the case is from the same day. This has resulted in the radiologist being asked by administration to remove the post.

RARE CASE PRESENTATIONS

Using SoMe for education can be especially difficult when the disease is considered "rare." Balancing between protecting a patient's health information goes beyond protecting a patient's name or date of birth. Sharing cases of so-called "orphan diseases" can carry an increased risk of potentially identifying a patient, thus violating HIPAA [5].

Unfortunately, not all parties will agree with the definition of "rareness" of an illness. At one of our institutions, one such example is the human immunodeficiency virus (HIV). HIV has a long history of stigmatization, and to nonmedical professionals in high socioeconomic environments, it might be classified as a rare disease.

HIV remains an important disease because of the many related illnesses and imaging findings that are important to identify. We adapted and use the term "immunocompromised" as an alternative. Radiologists who do not routinely encounter patients with this disease have given outstanding feedback. Often compromises can be reached to continue educational content and, if done cautiously, can help protect a patient's identity.

Using SoMe to educate physicians and the general public can align with the missions of support groups and advocacy organizations and can help undiagnosed patients reach a diagnosis faster. For example, several months after posting a case of Poland syndrome (congenital underdevelopment

of chest wall muscles), a mother reached out to the authors through direct message on Twitter. The mother was concerned that her child had this disorder and was having difficulty finding further information. Although the authors were not experts on the disease, they helped connect her to physicians at their children's hospital for further evaluation.

PROFESSIONAL CONTENT

For the purpose of free open access medical education (#FOAMed), several medical educators and medical societies post unknown cases on Twitter and encourage learners to reply in the comments using graphics interchange format (GIF) images. Use of these animated GIFs allows the learner to hint at the answer without spoiling it for others. This increases engagement with the intent of improving retention of the concept by combining flashbulb episodic memory with factual medical information (semantic memory).

In our experience, using GIFs has been an invaluable addition to SoMe-based medical education. We strongly recommend that educators monitor all replies on their account, including the GIFs, to ensure appropriate, professional interactions. One must place himself or herself in the eye of the patient or parent when evaluating replies.

This is a lesson we learned after an online parent support group was upset by GIFs being used to reply to an unknown interesting case, which they felt made light of their children's disease. Even though there was no harm or ill intent, this was a critical reminder that we must remember our audience. This particular radiologist decided to post unknown cases with the answer together, thus negating the need for GIF replies. Another option is to carefully monitor (and potentially block) the GIF replies. If one is uncertain about the professional appearance of the GIF, one could run it by another colleague for an opinion.

INSTITUTIONAL APPROVAL

Because of potential criminal and financial issues, institutions are increasingly vigilant about content that employees post to SoMe [6]. Legal considerations extend beyond the safeguard of protected health information (PHI). One must also consider the appropriate use of institutional branding and copyrighted institutional logos for SoMe purposes.

SoMe-based efforts for personal, departmental, and institutional missions in education, research, and clinical medicine do not always align. Even with departmental support and with the best intentions, one might unintentionally run afoul of tacit institutional expectations. Radiology practices may span multiple hospitals and institutions, each with their own policy for SoMe use.

For one author after having developed and overseen a department-sponsored SoMe-based radiology education initiative for more than 2 years, it was distressing to receive a cease and desist letter from our multispecialty practice group administration because of concerns about the use of medical images and institutional logo on SoMe. Because of concern over potential risks, administration sought a defined enforceable means of safeguarding PHI via shared medical images.

Rather than abandoning this education initiative, radiology educators within our department decided that a better solution was to work together to craft a mutually acceptable policy. This included multiple meetings involving our department chair, IT manager, HIPAA liaison, and legal counsels, as well as members of hospital administration, including the chief information security officer. What initially began as an effort to prove the utility of using SoMe for medical education grew into an opportunity to contribute to the development and implementation of a comprehensive policy.

Based upon this experience, we advise that radiologists do their homework initially to remain compliant with institutional SoMe policies. We advocate that radiologists take a lead in working with multilevel leadership and associated legal counsels to craft a SoMe policy that benefits everyone. This is an opportunity to contribute to the development of a sensible SoMe policy that furthers personal, professional, departmental, and institutional aims while appropriately safeguarding PHI.

CONCLUSION

There are many rewards associated with utilizing SoMe for medical education and professional development, but it is not without unanticipated challenges. We strongly advise that radiologists remain cognizant of the importance of maintaining PHI on SoMe, and we hope that readers will take heed of the lessons that we have learned from our moments of failure with using this novel tool for medical education.

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