

PRECEPTING SERIES:

Becoming Social: Tips for Preceptors on Integrating Social Media Into Rotations

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Social media, sometimes more broadly referred to as Web 2.0, has increasingly become a part of everyday life.^{1,2} Social media sites are digital, public or semi-public communities, which allow users to share content and easily interact with other users. However, their use has expanded beyond just making personal, social connections and has now surpassed printed newspapers as a preferred news source.³ Additionally, social media platforms have evolved in order to allow users to generate, distribute, and share content.

Web 2.0 and Education

Although sparse, there is some research on the incorporation of social media and mobile devices in graduate health profession programs, including pharmacy, which may point to an increase in its acceptance and educational use.⁴⁻⁸ For example, Facebook has been used as an effective teaching tool. One study which described the creation, implementation, and evaluation of a Facebook activity, concluded that “Facebook provides an informal learning environment for presenting contemporary topics and the thoughts of guest experts not affiliated with a college or school, thereby exposing students to relevant ‘real world’ issues.”⁷

A majority of students surveyed at one institution revealed that they use social media to help with learning activities, which included connecting with classmates.⁹ However, robust data is lacking to determine whether or not learning is improved through the use of social media as an educational tool. Likewise, there is little guidance for preceptors on the best way to implement social media in the experiential educational setting.⁹⁻¹¹ The purpose of this article is to describe the potential advantages, perils and pitfalls, and considerations for integrating social media into rotations as an educational tool.

Advantages of Social Media as an Educational Tool

Accessibility

Social media sites are generally accessible via any electronic device that is connected to the internet, including mobile phones. Content is also generally free and accessible to any user. This gives learners the freedom to choose when and where they want to learn and allows for more effective use during downtime on rotation, at home, or while commuting.

Building Connections

Many professional organizations,

pharmacy sites, and pharmacy schools have a public social media presence that serve multiple purposes including branding, announcements, recruitment, surveying members, and distribution of content. These content creators may sponsor or produce their own blogs or podcasts that discuss current issues, and educate their members or the public. In addition to providing educational content, these platforms may also serve as a resource for current, relevant ideas for journal clubs and projects, or, at a minimum, spark discussions with preceptors. Furthermore, social media may be used as a means to indirectly participate in professional conferences, a trend that has become more prevalent recently.¹² Social media is now even used by medical journals and researchers to promote and discuss new medical literature.¹³ Much like professional organizations, medical journals may have their own podcasts and blogs which can include new literature overviews, literature evaluation, and interviews with authors.

Stickiness

Structuring lessons to have a positive impact on the learner boosts engagement and retention of information, also called “stickiness.”¹⁴ If learners enjoy doing an activity, they are more likely to be

motivated to do it again. Content creators within social media are often skilled at making content stickier in several ways. Positive emotions can be evoked with images, videos, compelling stories, and humor in order to captivate the learner. Creators may also be particularly adept at simplifying complex topics. Content can be tailored to be very brief, such as clinical pearls, which can invoke a sense of accomplishment once completed. In addition, sharing, commenting, and discussing content functions as a form of repetition and active engagement, which may also aid in retaining information.¹⁵⁻¹⁷

Perils and Pitfalls

Information Overload

The amount of content available through social media may be overwhelming to the preceptor or learner, and thus a potential pitfall for being used effectively. This problem is exacerbated by the need to learn multiple platforms, not all platforms are easily searchable, and newsfeed algorithms may make it difficult to customize what content is seen. The difficulty of learning to use multiple platforms might also be a deterrent to social media's adoption as an educational tool. Savvy preceptors could be invaluable for guiding learners in how to search for specific content as well as develop a system for keeping updated without becoming overwhelmed. Specifically, it may be helpful for preceptors to consider instructing

learners about push and pull effects and news aggregators.

Two terms that are often used in marketing, push and pull effects, are used in this context to describe the relationship media has with the end-user.¹⁸ Some platforms may “push” content to the user, which may promote recency bias, or a bias toward popular, “trending” content. This takes control away from the user and is usually less ideal for learners that are at a lower level of learning. Platforms that “pull” a user toward content tend to draw a learner in by establishing a relationship and trust over time. This content is generally voluntarily subscribed to and published to the user in chronological order, which may reduce recency bias.

Rich Site Summary (also called Really Simple Syndication or RSS) feeds are an older, yet still utilized, method for many websites, blogs, podcasts, etc. to standardize content and place it into a feed in order to push content to subscribers. This type of feed can circumvent the newsfeed algorithm of a particular platform. News aggregators (also called feed aggregators, RSS readers, and news readers) are applications that combine RSS feeds into one place for easy viewing. Several news aggregators are available for free which give more control to the user by decreasing time spent checking for updates on individual websites, allowing for bookmarking of content in one place, and customizing notifications.¹²

Quality of Content

Preceptors often play a significant role in instructing learners how to evaluate medical literature and how to appropriately use resources. Therefore, preceptors could be invaluable for teaching learners how to assess the quality of content generated through social media. One opportunity could be to outline principles for learners to consider when evaluating social media content. For example, posts should clearly identify authors with their credentials and content should be cited with appropriate references. Other factors to consider include: open peer-review process, qualification for continuing education, an active and respectful comments section, historical response to feedback and willingness to revise content if proved inaccurate, variety of experience and qualifications of contributors, and disclosure of any potential biases and conflicts of interest.^{19,20}

Liability, Privacy, and Professionalism

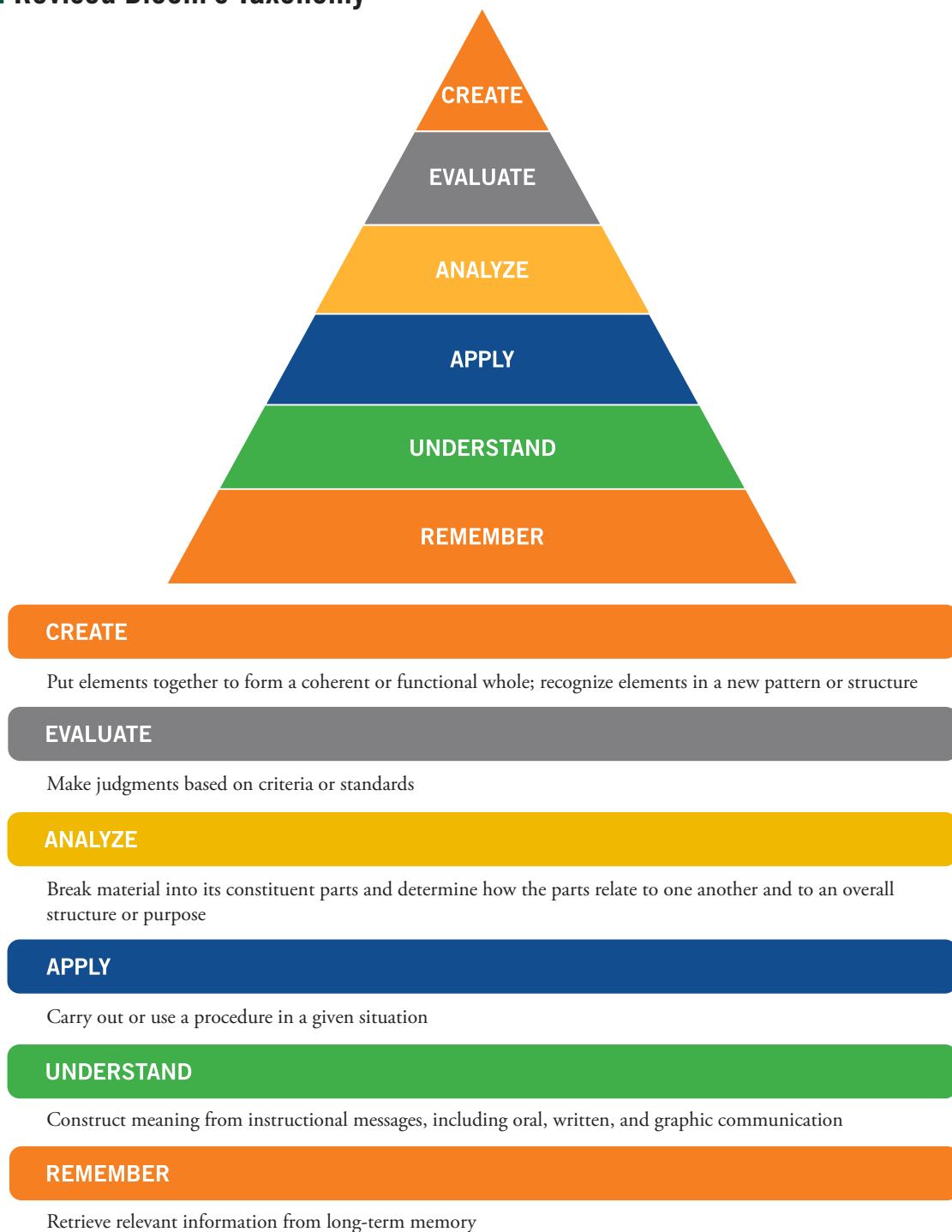
Just as with traditional medical literature, information gained from social media should not be implemented without a full review of the evidence. Similarly, implementation of social media as an educational tool should not violate institutional policies or guidelines. Creation and sharing of content should in no way violate the privacy of patients. Users should be aware that certain platforms (e.g. Facebook and Twitter) have a greater

TABLE 1. Example Social Media Activities^{21,23}

Revised Taxonomy	Keywords for Learning Level	Suggested Level of Learner for Activity	Social Media Activity
Remember	Recall, Recognize	IPPE	Recognize 5 social media posts or articles trending in the past week relevant to pharmacy practice
Understand	Interpret, Classify, Explain, Summarize	IPPE	Summarize and discuss a pharmacy-related article or post on social media from the past week
Apply	Execute, Implement	APPE	Develop a list of posts or articles found on social media that could potentially be applicable to the provision of patient care during the clinical rotation
Analyze	Differentiate, Organize, Attribute	APPE	Compare and contrast the content provided in a recent social media post from a pharmacy organization with a related article published in a peer-reviewed pharmacy journal
Evaluate	Checking, Critiquing	APPE, PGY1 resident	Critique a social media post or article relating to pharmacy-related topic using appropriately referenced material to support, defend, or contradict the content presented on social media
Create	Generate, Plan, Produce	APPE, PGY1 resident	Create a social media post or article that promotes the pharmacy profession, highlights your pharmacy site, or describes some lessons learned from the learner's current rotation

IPPE = Introductory Pharmacy Practice Experience ; APPE = Advanced Pharmacy Practice Experience; PGY1 = Post-graduate year 1

FIGURE 1. Revised Bloom's Taxonomy²³



potential to mix personal and professional profiles. All interactions within social media platforms should be thoughtful and respectful. Schools of pharmacy and employers may have their own policies on the use of internet, social media, and mobile devices while on rotation or in the workplace and these should

always be followed. Moreover, the use of mobile devices while on rotation may be distracting and can unintentionally give the wrong impression to preceptors, other members of the healthcare team, and patients. If mobile devices or social media are used on rotation, preceptors should set clear expectations early.²⁰

Rotation Activities

Preceptors who want to utilize social media as an educational tool to achieve the objectives and goals of their rotation should consider implementing activities aimed at the desired taxonomy of learning, the level of learner on rotation, and the learner's learning style. Keeping these factors in

mind may help optimize the learning experience and be advantageous in assisting the learner to internalize the knowledge and skills that are being developed in the rotation. Additionally, creating appropriate activities utilizing social media may help mitigate some of the concerns associated with its use in the experiential setting (Table 1).

Revised Taxonomy

Bloom's Taxonomy from 1956 provided the classical framework for classifying various levels of learning.^{21,22} This original taxonomy was revised in 2001 and contains six levels of learning in a hierarchical structure: remember, understand, apply, analyze, evaluate, and create.^{21,23} Each level, as described by Anderson and Krathwohl, is outlined in Figure 1.²³ In this framework, each level is associated with an increasing level of complexity and progressing to a higher level of learning requires mastery of the lower levels.²¹ For instance, before one can apply a concept, one must first understand and remember it. However, preceptors should not always start with activities aimed at lower level skills, nor does one need to progress completely through all levels for each activity. The key is to align the activity with the well-constructed learning outcome or objective. For example, on an ambulatory care rotation a preceptor might have the following learning objective for his/her rotation: Analyze and evaluate necessary information to make informed, rational, and ethical decisions appropriate for a patient or situation. Matching this objective with a social media technology, a preceptor could create an assignment that tasks the learner with analyzing pieces of information posted on a popular blog regarding a health-related topic while comparing and contrasting it to current, evidence-based guidelines and primary literature.

Level of Learner

When designing rotation activities, preceptors should also consider the level of learner in the rotation. Preceptors could develop activities for Introductory Pharmacy Practice Experience (IPPE) students that target lower levels of learning such as remember and comprehend, and

use activities for Advanced Pharmacy Practice Experience (APPE) students or residents that target higher levels of learning such as evaluate and create. For example, an activity for a first-year student could be to focus on building foundational knowledge regarding professional communication through a discussion, which specifically addresses professional communication within the context of social media. The discussion could examine the blurry line between someone's personal and professional persona, and the potential for social media to positively or negatively affect one's credibility, a site's reputation, and/or a profession's image. For more advanced students or residents, preceptors could focus on culminating integration of knowledge and skills while utilizing social media as a means for the learner to disseminate their final product or key "take aways" (e.g. a videocast of a journal club presentation).

Learning Style

Preceptors may also consider adapting their rotation activities to accommodate their learner's learning style. Beyond the traditional distinction between auditory, visual, and kinesthetic learning styles, several tools have been developed to assess other learning style preferences.²⁴⁻²⁶ One such tool, which is validated specifically for the context of pharmacy education, is the Pharmacists' Inventory of Learning Styles (PILS).²⁷ This tool describes four different learning styles specific to the field of pharmacy: enactors, producers, directors, and creators.²⁷ Learners and/or pharmacy preceptors can take a survey to identify their dominant and secondary learning styles within these categories.

Preceptors can use social media as an educational tool to appeal to these different learning styles. For example, enactors enjoy working with people and learn best in a "hands-on, unencumbered manner, not in a traditional lecture style format."²⁷ Therefore, this type of learner would likely be a great candidate for a "flipped classroom" approach to a topic discussion or case discussion.^{28,29} The flipped classroom method is a learning-centered pedagogical strategy in which basic concepts are provided to learners outside the scheduled class or rotation

time and then are applied during class or rotation time.²⁹ Using this method, a preceptor could record a topic discussion presentation and post the presentation on a social media platform, which could be viewed by the learner at home. After viewing the presentation, the learner and preceptor could engage in a case-based discussion at the rotation site where the learner is required to apply the knowledge and concepts covered in the recorded presentation.

Producers generally prefer working by themselves and value organization and attention to detail.²⁷ For this type of learner, preceptors could consider coaching the learner toward discovering content within social media platforms that is high-quality, well researched and referenced, and of longer form. The learner could then organize and summarize this content, which could serve as resource list for future students or residents.

Directors prefer learning in a "fast-paced environment."²⁷ The fact that social media is a fast-paced environment highlights one of the potential benefits and risks for using it as an educational tool. For this type of learner in particular, the use of social media as an educational tool may positively engage the learner, but may also negatively promote its exclusive use as a quick source of information in order to get an assignment completed on time. Therefore, it may be advantageous for the preceptor to describe both the potential appropriate and inappropriate uses of social media as an educational tool.

Creators on the other hand, "enjoy out-of-the-box environments where time and resources are not particularly constrained."²⁷ This type of learner likes keeping others entertained and engaged, yet is concerned about how others perceive them. Social media may provide this type of learner with the ideal means of motivating and engaging others in a positive, productive way. For example, this learner could help advertise pharmacy-related events or aid in residency recruitment efforts. However, given creators' concerns for how they are perceived, preceptors should consider discussing professional branding, e-professionalism, and/or recommendations regarding the appropriate use of social media for professional purposes.^{4,30-32}

Appropriate Use

Indeed, if preceptors plan to integrate social media into their rotation as an educational tool, it would be prudent to consider how to use these tools in an appropriately productive and collaborative manner for all learners. While several recommendations have been mentioned thus far, several additional recommendations have been described by the Federation of State Medical Boards, which would also be relevant for pharmacy education.^{31,32} Any preceptor interested in incorporating social media into a rotation activity is highly recommended to review these recommendations. Perhaps most importantly of all, preceptors should lead by example and model the appropriate use of social media with their own accounts.

Conclusion

The use of social media as an educational tool is still a relatively new concept. Application of this new tool is expected to evolve and be refined over time. Social media as an educational tool does offer several advantages, but also contains several potential pitfalls. It is expected that users will continue to utilize social media for personal and/or professional purposes. Therefore, it would be advantageous for pharmacy learners to have their preceptors embrace this tool and to coach learners on how to use social media in an appropriate, professional manner. Preceptors can consider integrating the use of social media in their rotations through specific activities or even consider adapting their precepting style to include social media elements with the goal of boosting engagement and developing life-long learning skills.

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