Twelve tips for using social media as a medical educator

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Abstract

Background: We now live, learn, teach and practice medicine in the digital era. Social networking sites are used by at least half of all adults. Engagement with social media can be personal, professional, or both, for health-related and educational purposes. Use is often public. Lapses in professionalism can have devastating consequences, but when used well social media can enhance the lives of and learning by health professionals and trainees, ultimately for public good. Both risks and opportunities abound for individuals who participate, and health professionals need tips to enhance use and avoid pitfalls in their use of social media and to uphold their professional values.

Aims and methods: This article draws upon current evidence, policies, and the authors’ experiences to present best practice tips for health professions educators, trainees, and students to build a framework for navigating the digital world in a way that maintains and promotes professionalism.

Results and conclusions: These practical tips help the newcomer to social media get started by identifying goals, establishing comfort, and connecting. Furthermore, users can ultimately successfully contribute, engage, learn, and teach, and model professional behaviors while navigating social media.

Background

All health professionals and trainees should recognize that we are now living, learning, teaching, and practicing medicine in the digital era. Recent surveys suggest that 50% of adults use social networking, and over 65% of online adults do so (Madden & Zickuhr 2011). Engagement with social media can be personal, professional, or both, and there is ample evidence that digitally-savvy adults and youth use social media for health-related information (Fox 2011). Given the nature of social networking platforms, use is often public. Though there are risks, many opportunities abound for individuals participating in social media.

Social media activity can enhance, detract from, or magnify the participant’s professional image (Greysen et al. 2010). Credible information can be shared widely. Connections within and outside of medicine can advance education, research, advocacy, and care. Indeed, magnification and rapid information dissemination is considered a core characteristic and function of social media, and some platforms such as Twitter were developed specifically for such dissemination. When used well, social media can be a form of engagement enhancing the lives of and learning by health professionals and trainees, and ultimately for public good.

Yet, lapses in online professionalism can have far-reaching negative consequences not only for the reputations and licensure of healthcare personnel (Greysen et al. 2012), but also for patients and the public (Snyder 2011). Social networking can be disinhibiting and can distort the original intended message, due to loss of context during transmission. Erasing information from online sites is a challenge, the US Library of Congress (2010) has already begun collecting the entire public digital archive from Twitter, which makes “tweets” permanent records. Health professionals thus need a guide to avoid pitfalls in their use of social media and to uphold their professional values.

Social media adds a new dimension to current teaching strategies. In many educational settings, traditional face-to-face classroom methods such as lectures, small group discussion and one-to-one mentoring and precepting are now supported or supplemented by online e-mail communication and controlled-access teaching platforms such as Blackboard or

Practice points

- Identify and reflect upon your digital identity and your own goals
- Observe and establish comfort first. Think, then contribute. Lurk before you leap
- Apply existing social media guidelines, and develop individual guiding principles
- Use social media to disseminate evidence-based health information, enhancing public health
- Engage, learn, teach, mentor: reflect on process
- Tap into the power of a community and advance your academic productivity by expanding your professional network
Moodle. With the expansion of widely and freely available social media platforms, educators can now consider the use of blogs, Facebook and other synchronous and asynchronous communication methods to teach, reach out to, and hear from individual learners and/or groups of learners at any time of day.

This article provides strategies drawn from current evidence, professional organizations, and authors’ combined 25 years of social media experience. We present “best practice” tips for health professions educators to build a framework for navigating the digital world in a way that maintains and promotes professionalism. The importance of modeling and teaching online professionalism is increasingly being recognized, and practical tips for educators, practitioners, and trainees are needed in navigating social media. Intended audiences include physicians, trainees, medical educators, and all health professionals who are contemplating use or who have already begun.

Making use of social media in medical education entails first recognizing your own goals (Tip 1), and then drawing upon best practices for education in any setting, online or offline. Many social media tools can be combined with each other and with face-to-face teaching to support “blended” or “hybrid” learning where different online and offline learning environments are mixed synchronously or over time. However, evidence for the effectiveness of blended learning in improving clinical competencies is still needed (Rowe et al. 2012).

Social media can be used to stimulate reflection and sharing comparably to traditional methods (Fischer et al. 2011). The choice of social media tools to achieve specific learning goals or objectives should be guided by deliberate consideration of their individual strengths and weaknesses (Table 1; Box 1).

### Tip 1

Identify and then reflect upon your digital identity and goals for using social media

Before making good use of social media, think about your goals and what you hope to do, learn, and share. Consider how these goals can shape your experience. For example, you might want to see what others in your field post online, with the goal of contributing to timely matters in medicine and public health. You might want to understand how your trainees are using social media, and then help shape, guide and converse with the next generation of healthcare professionals.

Once you articulate your goals offline, reflect on how you aim to portray yourself online. Will you share only some portions of yourself? How would you like to be known online? How will you ensure that your account or that of other “experts” is authentic? On many social media platforms you might want to see what others in your field post online, with the goal of contributing to timely matters in medicine and public health. You might want to understand how your trainees are using social media, and then help shape, guide and converse with the next generation of healthcare professionals.

<table>
<thead>
<tr>
<th>Social media tool/feature</th>
<th>What it is</th>
<th>Strengths</th>
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<tbody>
<tr>
<td>Audience response system</td>
<td>Allows audience members to become participants by responding to questions (e.g. PollEverywhere)</td>
<td>Interactive polling; real time feedback; engaging; generates a community standard</td>
</tr>
<tr>
<td>Blog</td>
<td>Online journals with entries in reverse chronological order. (e.g. WordPress, Blogger, TypePad)</td>
<td>Share ideas, values, reflections; improve writing skills; social tagging; generate shared vocabulary</td>
</tr>
<tr>
<td>Curation</td>
<td>Gathering and then sorting, categorizing, and re-sharing digital content from multiple sources to create a unique presentation of that content (e.g. Scoop.it, Storify)</td>
<td>Aggregating and contextualizing vast amounts of content; efficiency</td>
</tr>
<tr>
<td>Location-based networks</td>
<td>Allows users to share current geographical location and location history (e.g. Foursquare)</td>
<td>Connectedness; finding those in close proximity with whom to collaborate</td>
</tr>
<tr>
<td>Micro-blog</td>
<td>Character-limited blogs resulting in brief, discrete postings (e.g. Twitter, Tumblr, Posterous)</td>
<td>Finding and sharing information; crowd-sourcing; social tagging; instant access to large groups</td>
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<tr>
<td>Podcast</td>
<td>A downloadable audio or video file (e.g. iTunes)</td>
<td>Information delivery; easy access; can be individualized</td>
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<tr>
<td>Recommender systems</td>
<td>Collaborative or content filtering systems to assist individuals or sets of people to see what similar social media users like or recommend, in order to help identify useful “consensus” information in a community (e.g. used by Amazon, Netflix)</td>
<td>Sharing preferences; allows users to see common “likes” and “dislikes”</td>
</tr>
<tr>
<td>RSS reader</td>
<td>Used to manage subscriptions to online news feeds from websites which offer syndicated content. Also called “aggregator” or “feed reader.” (e.g. Google Reader)</td>
<td>Managing information</td>
</tr>
<tr>
<td>Social network</td>
<td>Platform where users communicate and share information online. Users create an individual profile, engage others in their network. (e.g. Facebook, LinkedIn)</td>
<td>Finding and sharing information, crowd-sourcing, popularity of platforms</td>
</tr>
<tr>
<td>Wiki</td>
<td>Website that can be edited by multiple people simultaneously. (e.g. Wikipedia)</td>
<td>Collaborative knowledge building, crowd-sourcing</td>
</tr>
<tr>
<td>Video chat</td>
<td>Allows for real time audio-visual communication among users at different locations. (e.g. Skype) If text only, called instant messaging.</td>
<td>Synchronous across different locations; allows teaching, meetings and collaboration</td>
</tr>
<tr>
<td>Virtual world</td>
<td>Interactive environments where real users can interact in simulated situations, often using representational avatars and in 3D. (e.g. Second Life)</td>
<td>Safe practice; feedback; engaging way to learn</td>
</tr>
</tbody>
</table>

Using social media as a medical educator

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Table 1. Selected social media tools, features, and rationale for use.
your digital identity. We suggest taking responsibility for the content you post by avoiding anonymity on social media. If your goal involves using social media in the context of your profession, i.e. as a physician, nurse, and/or medical educator, then that should shape how you portray and conduct yourself, and what and with whom you share. In setting up your account and profile, use appropriate privacy settings. Consider who else you might be representing, explicitly or inadvertently, i.e. your personal identity, your profession, your employer, or all of these?

In addition to how you aim to portray yourself, “Google” yourself periodically. What pops up first when searching your own name? Have you sufficiently separated personal from professional? How do your students or colleagues see you online? Be familiar with your online representation, while simultaneously building content about which you feel comfortable and which mirror your goals.

**Tip 2**

Select a tool based upon goals and the strength of platforms available to support educational activities

Based on your goals, select a social media tool with which to start (Table 1). For example, if your goal is to understand how your trainees are using social media, Facebook, the most popular social networking site, would be a logical choice. Alternatively, if your goal is to listen to conversations in your field or contribute by sharing credible health information with the public, consider Twitter, a popular microblogging social networking site used by 15% of adults (Smith & Brenner 2012). For those who enjoy and/or wish to further develop their writing, consider blogging. Table 1 includes selected social media features and strengths. Also consider access and level of support provided by your particular institution in choosing specific social media tools.

<table>
<thead>
<tr>
<th>Case example A (Awful):</th>
<th>Case example B (Better):</th>
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<tr>
<td>A physician educator decides to join a social network under the pseudonym Dr Meddy Eddy and jumps to using it right away. He hasn’t thought much about his goals for using the network, hoping to figure it out as he goes along. He accepts friend requests from some students but not others, and there is a perception that he likes some more than others. He posts about one of his patients from earlier that day who had a complicated post-operative course which he feels cause him to be late to a faculty meeting. Dr Meddy Eddy intended to privately message one of his colleagues about running late, but he inadvertently shared his rant about the trainee who was helping on the operative case with all in the network.</td>
<td>A physician educator decides to join a social network using his real name (TIP 1) with the “handle” Dr Meddy Eddy. He watches the online behavior of others in the network for a few weeks (TIP 3) and then decides that he will use the platform to create and curate information about his clinical field. His goal is to share clinical pearls with learners, have them weigh in with questions and comments, and to facilitate discussion (TIPS 1 and 10). The platform he chose allows him to set up different groups so he can selectively share content (TIP 2). Because he is using this network for professional purposes, he decides that he will accept “friend” requests from all learners who make such a request (TIPS 6 and 8). He does not post about his own patients but instead shares reflections about clinical scenarios that help learners (TIPS 5 and 7). However, recently a patient experiences a complication and he felt that a discussion would illustrate critical points for his learners. He obtains the patient’s consent to use the case anonymously, and then posts the case (explicitly noting patient’s consent and that some details have been modified) with a link to a peer-reviewed article on the topic of avoiding post-operative complications (TIPS 7, 9, 10). Other physicians who see his post provide comments drawing from their own experiences and research in the area, and several students post questions (TIPS 4, 10, 11).</td>
</tr>
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</table>

**Tip 3**

Observe and establish comfort first. Think, then contribute

When trying to understand any new community or phenomenon, it makes sense to observe respectfully for a while before leaping in. This way you can understand the normative interactions existing on the platform, the types of users, and things to avoid. You might see behavior that is common but nonetheless disconcerting to you; in this situation you might opt for another tool, or engage with a different online community. In reflecting back on your goals, we suggest you eventually move past lurking and head towards making meaningful contributions.

Social media can foster rapid communication, with tools enabling quick and far-reaching sharing of ideas, commentary, and evidence. But you might inadvertently share something that upon further reflection you actually did not want to share. It will be important to remember the potentially public nature of your online interactions. Reflecting before you post can help you stay true to your goals and uphold the standards of the health professions. When in doubt, you may even want to wait to post until you have considered it further or have asked someone else to review it first.

**Tip 4**

Make some initial connections and tap into the power of a community

Social media is inherently interactive, allowing users to “meet” other social media users. Once you establish your goals and start forming your digital identity, it is helpful to reach out to others. You may find people who can serve as online role models, who can share your posts with their followers, provide comments, and make suggestions.
Think about who you want to interact with, and then join a community. Consider joining an online community; participate in a chat, such as on Twitter. Chats are typically real time synchronous opportunities to communicate and share ideas with others on topics such as medical education or healthcare communication. Some chats are geared towards professionals, and others are focused on patients’ voices (e.g., about end of life care or cancer), discussing topical issues facilitated by a moderator. Some online communities are public, while others are shared by only selected invitees. Some interactions are one-to-one, others one-to-many or many-to-many, synchronously or asynchronously.

**Tip 5**

Know and apply existing social media guidelines for the responsible use of social media.

Some guidelines are critical in order to teach effectively and practice medicine ethically and others seem prudent for good citizenship. Several physician, nursing, student, and other healthcare organizations have provided guidelines pertaining to professionalism. As you become familiar with these guidelines, determine the manner and extent to which you will implement them, and how you will apply them. Some are prescriptive (e.g., protecting patient privacy) and others are formative (e.g., think before you post).

The American Medical Association (AMA 2011) policy raises awareness, prompting physicians to protect patient privacy, use privacy settings to safeguard personal information to the extent possible, to maintain appropriate boundaries, and to consider separating personal and professional information. The AMA also notes that physicians have a responsibility to act on unprofessional posted content, such as by bringing it to the attention of the individual who posted this information or “reporting to the authorities.” Furthermore, the AMA asks physicians to weigh how their actions online may negatively affect their reputations and undermine public trust in the medical profession. We find it important to recognize that physicians’ online postings can also have positive consequences and bolster public trust and public health as well (see Tip 9).

In their social media guidelines, the American College of Physicians with the Federation of State Medical Boards (FSMB) noted potential benefits, potential pitfalls, and recommended safeguards for online physician activities (Farnan et al. 2013); the FSMB provided narrative examples of hypothetical scenarios depicting unintended consequences of social media use that may undermine the physician–patient relationship and public trust (FSMB 2012). The Canadian Medical Association focuses on key issues and rules of engagement to help physicians using social media “remain governed by the same ethical and professional standards that have always applied and that are paramount” (CMA 2011). Guidelines for nurses include common myths and misunderstandings and provide illustrative case scenarios (National Council of State Boards of Nursing 2011).

Your own institution, program, practice, or school (Kind et al. 2010) may have guidelines as well. Become aware of your professional organization’s guidelines for the use of social media and licensure organization’s recommendations for online behavior.

**Tip 6**

Develop individual guiding principles with which you are comfortable

In tandem with recognizing “official” policies (see Tip #5), you will best meet your own goals if you develop individual guiding principles regarding your social media conduct. Personal guidelines will provide a rationale of your behaviors not only to friends and family, but also to patients, trainees, colleagues, and your professional organization or employer. Draw upon existing tenets of medical professionalism (Stern 2006), but also recognize the particular challenges to professionalism online, such as the public nature of your interactions, the immediacy, the wide reach, concerns about authenticity, and the pitfalls of anonymity and misrepresentation (Chretien & Kind 2013).

It helps to know who you are offline, and who you will be online, reconciling the two and making sure to portray a digital identity with which you feel comfortable. In person, facial expressions and body language play a big role, but on social media, humorous attempts may appear spiteful or unprofessional. Humor can be a valuable and enjoyable form of reflective processing, but it should not be at the expense of others such as patients, trainees or peers, or the profession at large (Farnan et al. 2009).

You might have personal guiding principles pertaining to discussing work on social media. Officially you know not to breach patient confidentiality, but you might also decide not to post about your work-related experiences. On the other hand, you might decide that you want to post about work-related experiences but to do so only in a respectful, professional, reflective tone.

Also think about how you may be perceived in the public social media space. It helps to try to anticipate potential interactions and situations before they arise, for example, consider how you will handle a colleague, student, resident, boss, patient, or stranger wanting to connect with you online (see TIP 8).

**Tip 7**

Keep all patient information private

This is imperative. Healthcare professionals are careful to protect patient’s privacy in the elevator when there is even just one other person present, but need to remain cognizant that on social media that hypothetical one other person listening could translate to millions of others listening, reposting, and disseminating information that should have been kept private.

In the context of one’s day intertwined with the use of social media, it might seem natural to post about what makes you happy or frustrated, what you experience, marvel at, and learn. However, patients and the public need to know their stories are not being shared publicly. Thoughtful reflection
about patient care experiences can be enriching, though it is critical to recognize that deleting a patient’s name or tweaking some details is not enough. You should obtain permission to write about a patient and explicitly state this when posting, or sufficiently generalize your reflective posting, maintaining privacy while avoiding harm.

Some sites are closed secure communities of an invited group of health professionals. However, most social media is open for posting, sharing, and re-posting. If your goals for using social media include querying and seeking answers from colleagues on patient-related matters, you will need to sufficiently generalize your queries if posting publicly, or post clinical questions using de-identified patient information on HIPAA-compliant sites.

Another challenging issue with regard to patient privacy includes how to respond to patient requests to connect with you on public social media platforms. You might respond by directing patients to a secure platform on which you have agreed upon assurances for matters such as privacy and response time.

**Tip 8**

Handling “friend” requests from trainees: Know your options and their consequences

How will you interact with trainees in the social media arena? If you have thought about your individual goals (see TIP 1) and your individual guiding principles (see TIP 6), you will be able to make more deliberate choices about how, when, and whether to interact with trainees online comfortably and appropriately. For example, you could choose to do so only when the trainee initiates the request, or only in secure protected platforms, or only with former students but not current ones, or perhaps you will opt not to interact with trainees at all.

You may know your students and residents, but think through how much sharing if any, is appropriate, especially if you evaluate them. In studies of clerkship directors in internal medicine and pediatrics, fewer had social media relationships with students than with residents (Chretien et al. 2011; Kind et al. 2012).

It is important not to put trainees in uncomfortable positions where they feel compelled to accept your request to connect. You might choose to accept their requests but not send them invitations. Or, you might only choose to accept requests once they have completed their rotations with you (i.e. once you no longer evaluate them as students/trainees).

Or, you might choose to connect only on forums set up explicitly for educational purposes, such as an interactive class blog (Chretien et al. 2008) or other virtual learning communities.

Another tip is to separate your personal use of social media from your use for more academic, scholarly, or professional purposes. For example, you might choose one platform for primarily personal use and another for professional interests. You may not be able to completely separate these, but this way you can decide if and where you want to connect with students and other trainees, and redirect requests to your “professional” account.

**Tip 9**

Share credible information: disseminate evidence-based health information, enhancing public health

Next steps are to use social media to actively share credible information, correct misinformation, and respond to inaccuracies. Take “don’t believe everything you read” further and disseminate information that is based on expert guidance, the evidence, and science. When you come across misinformation, you can counter with accuracy. This may be where you can do the most good.

Social media can be used as a form of public health promotion and advocacy (Neiger et al. 2012). For example, there have been efforts at using Twitter and Facebook by ministries of health (Carrillo-Larco 2012), by public health departments (Thackeray et al. 2012), for sexual health education programs (Bull 2012), for emergency preparedness (Merchant et al. 2011), and for disseminating credible information and responding to public concerns during outbreaks (Chew & Eysenbach 2010). Medical educators and students can partner with local or global organizations in these efforts.

**Tip 10**

Engage, learn, reflect, and teach

Social media meets the learner where they are. Alternatively, it might bring the educator and/or learners slightly beyond their comfort zone to engage and grow. Social media is one among many ways to “flip” the classroom (Khan 2011). Students could watch educationally relevant videos, blog reflectively or curate information about what they have watched and learned, and then come together to discuss in person with expert educators. If choosing to interact with trainees online, you can learn from them as well. You could engage in a social media forum together, join their online network (with permissions), meeting them where they are interacting, reflecting, learning, and are comfortable sharing.

A pilot study at one medical school found that using social media tools with students augmented learning opportunities, allowed for real-time communication outside of the classroom, helped students connect with medical experts, bolstered collaborative opportunities, enhanced creativity, and helped students “acquire tools and skill-sets for problem solving, networking, and collaboration” (George et al. 2011). A recent systematic review of interventions using social media in medical education found improved knowledge, empathy, and reflective writing, as well as enhanced learner engagement, feedback, collaboration, and professional development (Cheston et al. 2013). Some examples are briefly discussed below. Also see Table 1 for additional uses.

Teaching and tweeting? There are many ways to use Twitter’s free, public, highly interactive micro-blogging service to extend traditional classrooms. As an educator, you could share daily learning goals or encourage students/trainees to
post their goals and comment on one another’s posts. You could share links to articles pertaining to course content. You might hold journal clubs on Twitter (www.twitter.com#twijc) where articles are read by participants who then discuss it in a facilitated “chat” with prompted questions and responses. While it can extend traditional “office hours” you could set up ground rules regarding social media expectations for each cohort of trainees/students. Twitter, or other polling software applications, can be used as “audience” response systems synchronously or asynchronously in the same location or across the globe.

Build a wiki with your students and trainees. In orienting learners to clinical sites and educational rotations, a wiki can provide input and updates from a variety of individuals to facilitate the best information flow. You could build a wiki that, for example, organizes administrative and educational content for trainees. Such a wiki was created in an internal medicine residency program and improved workflow (Crotty et al. 2012). With a wiki, learners can work together to cull resources, to craft projects, to teach each other. Skillful moderation, creating a safe space, and providing prompts and assignments can facilitate interaction and group participation (Sandars 2006).

Online reflective blogging is another way to build a community among learners. A shared class blog with comments and discussion prompts can be used to stimulate reflection (Chretien et al. 2008). Social media can even provide opportunities for students to become engaged in learning and the reflective process in resource poor environments through mobile educational technology (Pimmer et al. 2013). If topics are sensitive, or if educational content pertains directly to patient care, participants should opt for a closed, secure platform where participants are invited and the content is shared only within the group.

**Tip 11**

Research: Advance your academic productivity by expanding your professional network

You read articles and try to stay current with advances in your field, including medical education innovations. Traditionally you might learn about published works and disseminate your own research at meetings and through publications. You can also share with and get feedback from vast audiences by posting on social media. You can connect with other educators and researchers whom you might otherwise have never met. In reaching out with your scholarly ideas and queries using social media, you can develop new collaborations, including quality improvement and multicenter research projects and further advance your own and others’ scholarly pursuits. Collaborative research can be conducted more easily and efficiently through the use of well-chosen online project management, scheduling, collaborative writing, and expert finding tools (Huggett et al. 2011, see Tip 9). If discussions within more defined groups are preferred, faculty within a college of medicine, in a particular division, or in special interest groups can come together asynchronously and over a wide geographic region to engage in online networking and discuss works in progress, research findings, and new projects.

**Tip 12**

Mentor and be mentored: demonstrate responsible social media use

Social media provides an opportunity to reach out to those you emulate and to help others who look up to you for guidance. Given the worldwide reach, connections can be made across the globe, bringing people closer through a post or comment or a massive open online course (MOOC). But who best to serve as social media mentor, and how? In a survey investigating who best to mentor the students as they engage with social media, residents felt more comfortable than faculty at guiding students (Patel et al. 2012). Among first year medical students at one medical school, a faculty mentor facilitated discussion session on online social media and professionalism followed by written assignment exercise led to thoughtful reflection, increased professional role awareness, and intention to monitor their future online presence (Lie et al. 2013). In another study involving focus groups, preclinical and clinical medical students expressed wanting to discuss best practices and general common sense recommendations for using social media well, but did not want to be controlled (Chretien et al. 2010). As occurs at each of our respective institutions, we recommend and participate in social media and professionalism curricula within medical school and inter-professionally. These include scenarios and active debates of both risks and opportunities, among students, healthcare professionals, librarians, and possibly lawyers.

Seek and share positive examples of social media use for education, mentoring, and health promotion. If you see unprofessional content or conduct, reach out to help those who may not recognize the consequences of their actions. As you would demonstrate professional interactions offline, all healthcare professionals can demonstrate professionalism in social media communications and serve as role models.

**Conclusions**

There are risks as well as productive uses of social media that can enhance education, professionalism, and public health. Positive uses include disseminating accurate information, countering inaccuracies, modeling professionalism, and engaging learners and the public outside of traditional classrooms/offices. Once you get started by identifying your goals and establishing comfort, you can contribute, connect, and share in ways that foster your teaching, learning, and professional growth. The choices you make as an educator about which social media platforms to use and how to blend them with other learning activities should be guided by your goals, the strengths and weaknesses of the platforms, and the expected educational benefit to your learners.
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