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# Using Social Media as an Educational Tool

Kirsten Brown, PhD, MA  
Katherine Chretien, MD

## Who we are?



Twitter: @DrKirtyBrown  
Instagram: @BuffNBlueAnat



Twitter: @MotherinMed  
Instagram: @KatherineChretien

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## Agenda

- State of social media use
- Why use social media
- Overview of social media use in medical education
- Case study: Buff and Blue Instagram
- Case study: Reflective Writing Class Blog
- Important Considerations
- Questions

## The what, who, and why of social media use for medical education

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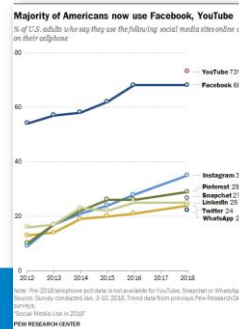
## What is social media?

"Online environments where users contribute, retrieve, and explore content primarily generated by fellow users" (pg. 2, McGowan et al, 2012).



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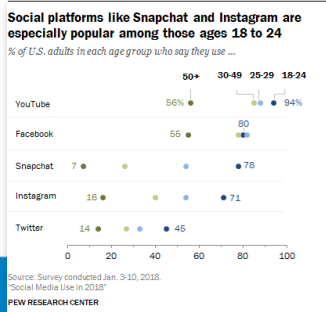
## Who uses social media?



- Approximately **69% of the American public** uses some aspect of social networking sites (Pew Research Center, 2017)
- Although young adults were among the earliest of the social media adopters, **older adult usage has also surged** (Pew Research Center, 2017)
- Approximately **55% of accredited medical schools** also have current student groups on Facebook (Kind, Genrich, Sodhi, & Chretien, 2010).

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## Who uses social media?



- #1
- #2
- #3
- #4

## Why use social media?

- Enhance social learning, connection, community
- Harness power of social media as interactive, communication tools
- Optimize its benefits for education (e.g., Bialy and Jalai, 2015; Hennessey et al., 2016; Jaffar, 2013; Pickering and Bickerdike, 2016)

# **TWITTER FOR THE MEDICAL EDUCATOR**

University of Virginia School of Medicine  
Office of Faculty Development  
Compiled by Kristina Zolotare and BLU@SONetAcademy

## **Why Tweet?**

Twitter is trending in iMedEd! Grow your professional network, receive and share resources, disseminate information about your research, promote your organization, and participate in online journal clubs and tweet chats.

## **Develop a Professional Twitter Profile**

To connect with medical educators worldwide, choose a professional handle and compose a profile explaining who you are, what you do, and your interests. Consider including a bioimage or bio link to show your interests and organizational affiliations.

## **Tweet at Conferences and Events**

#AMEE, #IACME, #ACMEConf, #ACME today and #IACME tomorrow and #IACME encourage tweeting. Use the event hashtag and invite other participants. Include pictures for highest impact!

## **How Do I Get Started?**

Follow national organizations, organizations, journals such as @journalofme, @ACASimEdJournal and @IACMEEd, and VA accounts such as @iMedEd@NVA, @VNU@COM@VA, @VAU@HAF@VA, @VAF@NVA, and @BDF@SONet@VA

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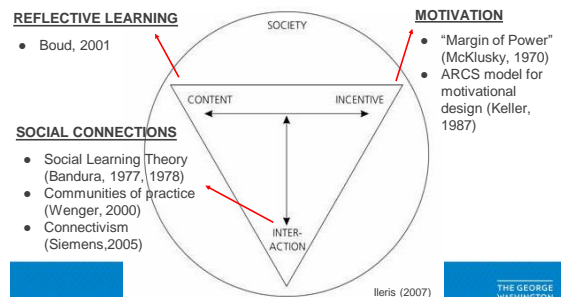
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## Why use social media for education?

A recent study identified that 100% of medical students have a presence on social media, but **only 33% of medical educators reported using social networking sites to interact with these students** (Bialy & Jalali, 2015).



## Learning theories



## Examples of social media use in medical education

## Social Media Use in Medical Education: A Systematic Review

Christine C. Cheston, MD, Tabor E. Flickinger, MD, MPH, and Margaret S. Chisolm, MD

- **Design**
  - 14 studies included
  - Most common tool: blogs
  - Also wikis, chats, multimodal
- **Challenges**
  - Technical (43%)
  - Variable learning participation (43%)
  - Time (21%)
  - No adverse events



## Social Media Use in Medical Education: A Systematic Review

Christine C. Cheston, MD, Tabor E. Flickinger, MD, MPH, and Margaret S. Chisolm, MD

## Opportunities

- Learner engagement (71%)
- Feedback (57%)
- Enhanced collaboration (36%)
- Professional development (36%)
- Career advancement/networking (21%)
- Supportive learning communities (14%)
- Popular with learners (21%)
- Access when geographically remote

Acad Med 2013



## The Use of Social Media in Graduate Medical Education: A Systematic Review

Madeline Sterling, MD, MPH, Peggy Leung, MD, Drew Wright, MS, MLS, and Tara F. Bishop, MD, MPH

- **Design**
  - 29 studies included, 13 (45%) on education
  - Twitter, podcasts, blogs used to engage, enhance education
  - YouTube, wikis used to teach technical skills, promote self-efficacy
  - Modest quality as judged by MERSQI scores
- **Results**
  - Mixed results for resident satisfaction and knowledge attainment

Acad Med 2017












## Key questions as you start...



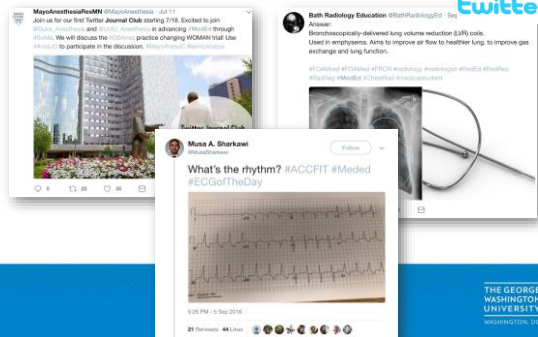
## Platform considerations

- Strengths and features of platform
- Demographics of use
- Learner preference
- Private/public
- Moderation



Social Media Tool	How it's used	Strengths	Examples
Blog	Online journals in reverse chronological order	Share ideas; reflection; improve writing skills, stored entries for archives	
Location-based Networks	Allows users to share current and historical geographical locations	Connectiveness; find those in close proximity to collaborate.	
Multimedia Messaging Application	Photos and videos available for short time before they become inaccessible	Known expiration, highly customizable for content and audience	
Micro-Blog	Character-limited blogs resulting in brief, discrete postings	Share information; crowd-sourcing; social-tagging; instant access to large groups	
Podcast	Downloadable audio file	Information delivery; individualized, accessible	
Photo and Video Social Network	User uploads various photos and videos with customizable and time specified expiration. Group and individual messaging.	Visually engaging, highly personalized, enhanced communication/community with messaging and public comments	
Social Network	Platform where user communicates/shares information with specified groups. Individual creates profile, engages others in their network.	Finding and sharing information; group sourcing	
Wiki	Information-based website that can be edited by any user, simultaneously.	Collective knowledge building, crowd-sourcing	
Video Chat	Real-time audio-visual communication. If text only, called instant messaging.	Synchronous dispute location; allows for meetings, teaching, and collaboration	

## Use of Twitter in meded





## Use of wikis in meded

### Why Medical Schools Should Embrace Wikipedia: Final-Year Medical Student Contributions to Wikipedia Articles for Academic Credit at One School

Amin Azzam, MD, MA, David Brenner, MD, MA, Armando Leon, MD, Lauren Maggio, PhD, Evans Whitaker, MD, MEd, James Heilman, MD, Jake Orlovitz, Valerie Swisher, Lane Raspberry, Kingsley Odoide, Fred Trotter, Will Ross, and Jack D. McCue, MD

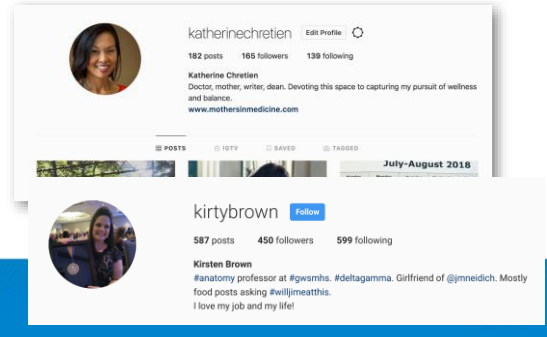
Research Article

### Developing professionalism through the use of wikis: A study with first-year undergraduate medical students

Tünde Varga-Adkins, Peter Dangerfield & David Brigden  
Pages 824-829 | Published online: 20 Sep 2010

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## Know thy platform!

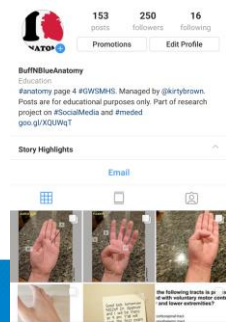


## Case studies for social media use in medical education

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### Case: Buff and Blue Anatomy

- Problem:** Reduction in formal instructional time for the anatomical sciences (Drake et al., 2009; Drake, et al., 2014; Halliday et al., 2014).
- Aim:** Determine the efficacy of social media-based instructional technology as a means to supplement traditional anatomy instruction
- Setting:** 15 week Fall 2017 semester; 3 integrated preclinical courses
- Participants:** MS2s (n=185)



### Questions before I started...

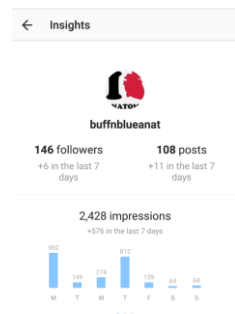


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### Study Design

#### Survey Instrument

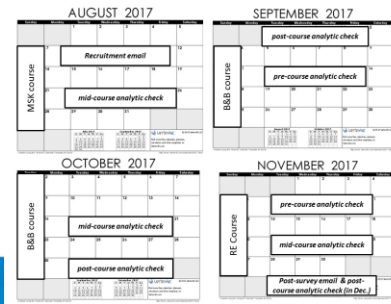
- General questions about social media use (e.g., platforms, time spent)
- Specific questions re: engagement with BuffBlueAnat account



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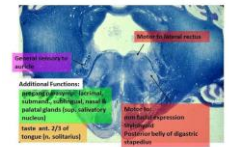


## Study Design



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## What did I post?

[View Insights](#)

Promote

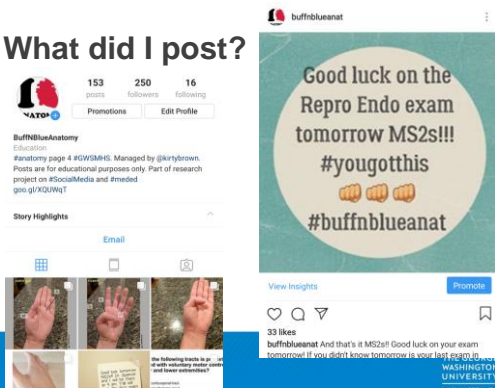
10 likes

1. What are the structures indicated by the tip of the arrows in A-D?
2. What do A, B, and D do?
3. How do you clinically assess the structures?

Swipe  and read below for the answers!

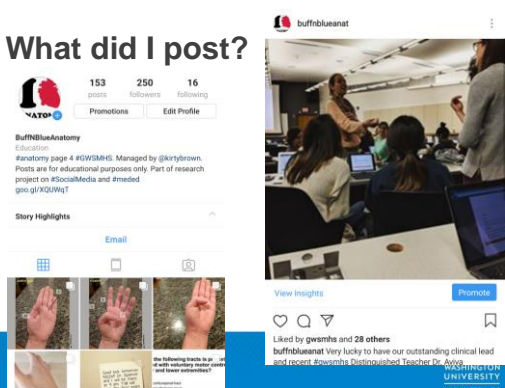
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## What did I post?



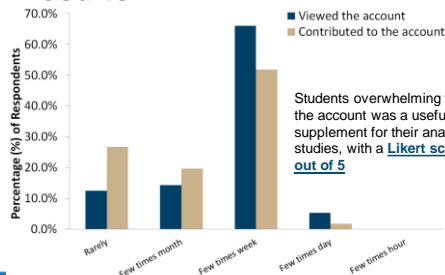
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## What did I post?



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## Results



Students overwhelmingly found that the account was a useful supplement for their anatomical studies, with a [Likert score of 4.46 out of 5](#)

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## Results

Instagram was a useful supplement to traditional anatomical instruction

*"quizzes were good ways to review outside scheduled study time"*

*"referred back to the account while I was studying to quiz myself."*

**Content and timing of the posts are important for student engagement**

*"I enjoyed posts applicable to current events"*

*"pop culture references to hold attention and be informative at the same time"*



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## Results

Most popular posts were those of encouragement and candid photos, **NOT QUIZZES**



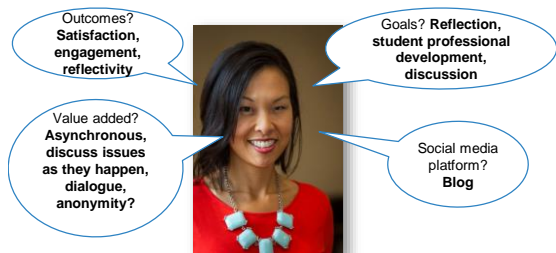
## Lessons learned

- Respondents overwhelmingly found that the @BuffBluetAnat Instagram was a **useful supplement** to traditional anatomical instruction.
- Those that viewed and interacted with the account more frequently rated it **significantly more useful** than those who viewed and interacted it with rarely
- Instagram enables interactions and connections between users that can foster learning by tapping into **informal educational opportunities and maintaining student motivation**

## Case: Reflective Writing Class Blog

- **Aim:** Promote reflection on professional development using collaborative, web-based technology
- **Setting:** Four-week medicine clerkship rotation
- **Participants:** Third-year clinical medical students, approximately 10 per 4-week rotation

## Questions before I started...



## Instructions

"Requirement: A minimum of two reflective posts per 4-week rotation, with the first post within the first 2 weeks to ensure classmates have a chance to read and respond to your writing. There is no length or subject requirement, but the posts must be reflective, that is, not just telling a story but **reflecting on how this experience affects you or changes the way you think about something**. Commenting on other classmates' posts is encouraged. The facilitator will read every post and give feedback in the form of comments. Participation is required but not graded."



### The Reflective Writing Class Blog: Using Technology to Promote Reflection and Professional Development

Katherine Chretien, MD<sup>1,2,3</sup>, Ellen Goldman, EdD<sup>2</sup>, and Charles Faselli, MD<sup>1,3</sup>

<sup>1</sup>Washington DC VA Medical Center, Washington, DC, USA; <sup>2</sup>George Washington University Graduate School of Education and Human Development, Washington, DC, USA; <sup>3</sup>Department of Internal Medicine, George Washington University School of Medicine, Washington, DC, USA

## Program Evaluation

- Descriptive analysis (number of posts, comments)
- Student satisfaction survey
- Qualitative analysis of themes in posts, comments
- Applied reflection rubric for "depth" of reflection

J Gen Intern Med 2008

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## Program Evaluation

- 91 students participated, 177 posts. 1/3 left comments
- 53% chose anonymous name
- Most students enjoyed writing posts, reading posts, and found instructor's comments helpful.
- Post themes: being humanistic, professional behavior, understanding caregiving relationships, being a student, clinical learning, dealing with death and dying.
- 8/177 posts not reflective

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- Participation **variable**
- Students wrote about sensitive issues
- **Hidden curriculum** elements revealed, discussed
- **Burden** of logistics
- Not true anonymity in many cases
- Faculty comments could spur **deeper reflection**
- No professionalism or patient privacy issues

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## Important considerations

- Public versus private
- Outcome measures
- Patient privacy
- Professionalism
- Expertise
- Learner buy-in



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## Wrap up



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## Questions?



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## Thank you!

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