THE GEORGE WASHINGTON UNIVERSITY

WASHINGTON, DC

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

Agenda

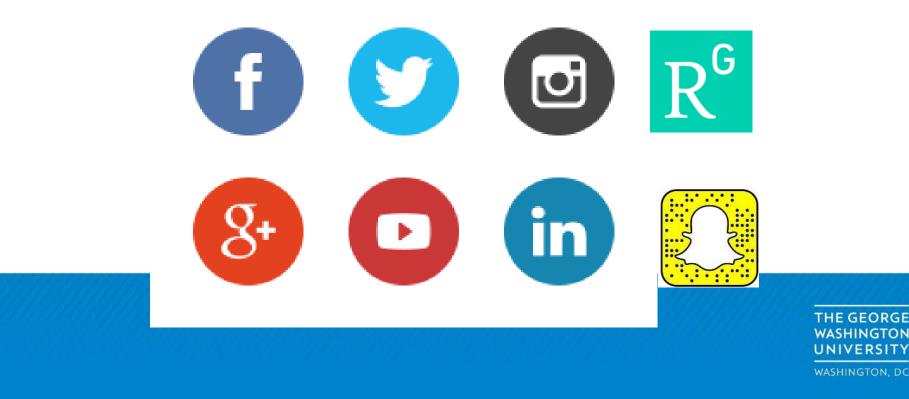
- State of social media use
- Why use social media
- Overview of social media use in medical education
- Case study: Buff and Blue Instagram
- Case study: Reflective Writing Class Blog
- Important Considerations
- Questions

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

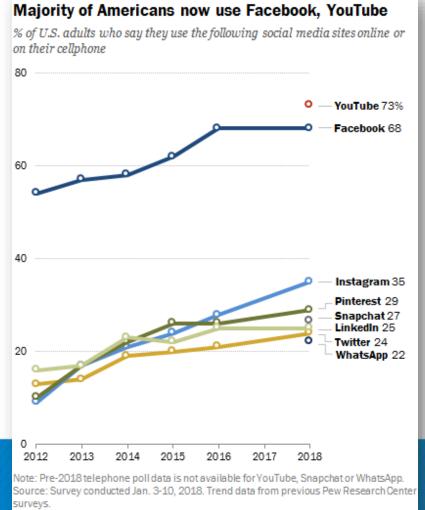


What is social media?

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



Who uses social media?



"Social Media Use in 2018"

PEW RESEARCH CENTER

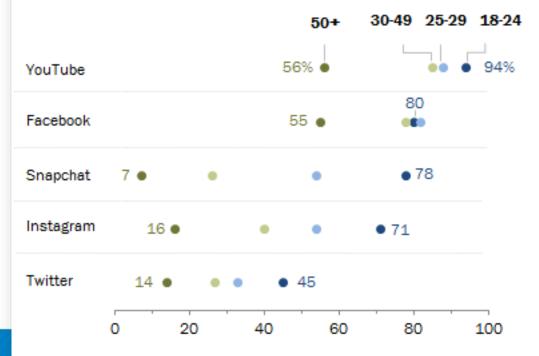
- Approximately <u>69% of the</u> <u>American public</u> uses some aspect of social networking sites (Pew Research Center, 2017)
- Although young adults were among the earliest of the social media adopters, <u>older adult</u> <u>usage has also surged</u> (Pew Research Center, 2017)
- Approximately <u>55%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



Who uses social media?

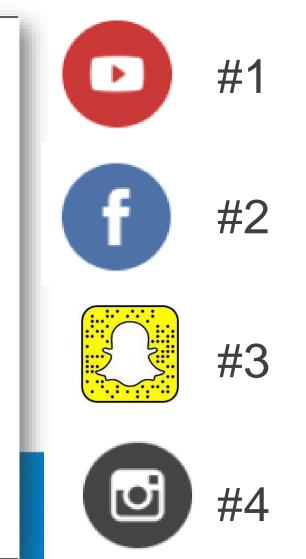
Social platforms like Snapchat and Instagram are especially popular among those ages 18 to 24

% of U.S. adults in each age group who say they use ...



Source: Survey conducted Jan. 3-10, 2018. "Social Media Use in 2018"

PEW RESEARCH CENTER



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 @KristinaDzara and @UVaSOMFacDev

Why Tweet?

Twitter is trending in #MedEd! 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 hashtags or handles to show your interests and organizational affiliations.

Tweet at Conferences and Events

Conferences such as @AAMCMeetings @ICREConf @AMEE_LIVE and @TheNEGEA encourage tweeting. Use the event hashtag and tag other participants. Include pictures for higher impact!



#MedE

How Do I Get Started?

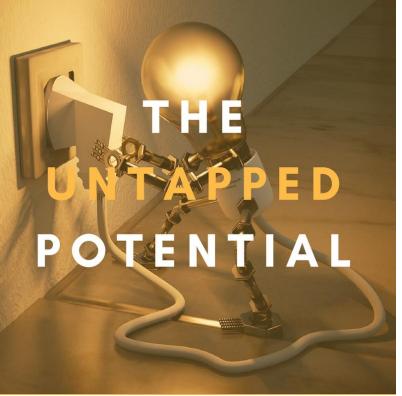
Follow national organizations such as @ACGME @AAMCToday and @AAMCMeetings, journals such as @JournalofGME @AcadMedJournal and @TLMedEd, and UVa accounts such as @MedicineUVA @UVaSOMFacDev @UVAHealthNews @CEOPamUVA and @DRShannonUVA

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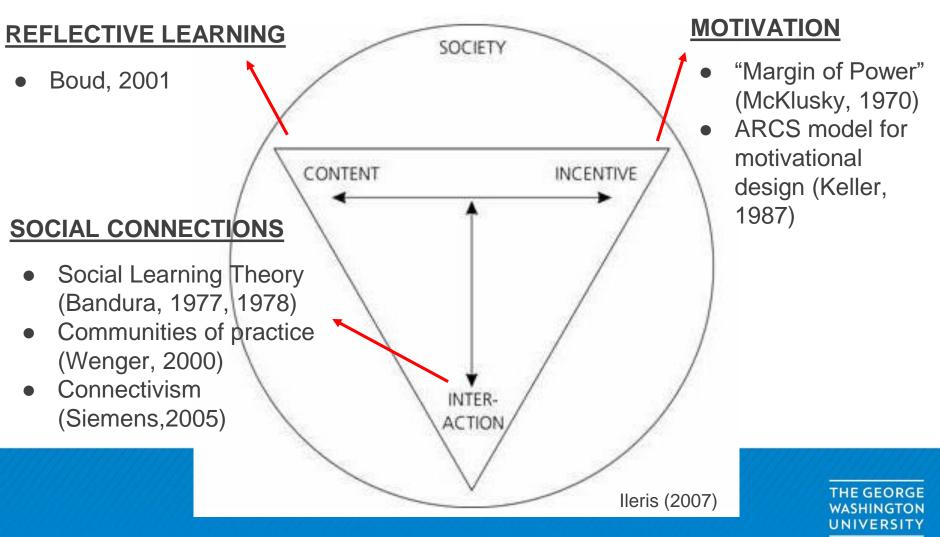
UVA SOM Fac Dev (UVaSOMFacDev). "New to Twitter as a #meded professional? Check out our tips for making the most of Twitter! https://t.co/fru2pvjQc1". 20 Jul 2017, 19:57 UTC. Tweet

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



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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



Acad Med 2013



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

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Acad Med 2017





Platform considerations

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

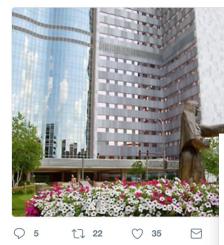


Social Media Tool	How it's used	Strengths	Examples
Blog	Online journals in reverse chronological order	Share ideas; reflection; improve writing skills, stored entries for archives.	WordPress
Location-based Networks	Allows users to share current and historical geographical locations	Connectedness; find those in close proximity to collaborate.	FOURSQUARE
Multimedia Messaging Application	Photos and videos available for short time before they become inaccessible	Known expiration, highly customizable for content and audience	snapchat
Micro-blog	Character-limited blogs resulting in brief, discrete postings	Share information; crowd- sourcing; social-tagging; instant access to large groups	twitter
Podcast	Downloadable audio file	Information delivery; individualized; accessible	Lines Podcast
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	OO Instagram
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	facebook Linked in
Wiki	Information-based website that can be edited by any user, simultaneously.	Collective knowledge building, crowd-sourcing	WikiPEDIA The Free Face/capeda
Video Chat	Real-time audio-visual communication. If text only, called instant messaging.	Synchronous despite location; allows for meetings, teaching, and collaboration	S Skype

Use of Twitter in meded



MayoAnesthesiaResMN @MayoAnesthesia · Jul 11 Join us for our first Twitter Journal Club starting 7/18. Excited to join @Duke_Anesthesia and @UofU_Anesthesia in advancing #MedEd through #SoMe. We will discuss the #OBAnes practice changing WOMAN trial! Use #AnesJC to participate in the discussion. #MayoAnesJC @emilysharpe



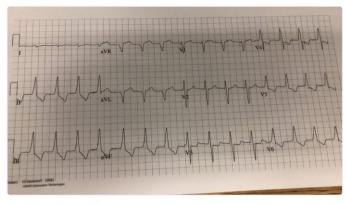
MAYO CLINK



Musa A. Sharkawi

@MusaSharkawi

What's the rhythm? #ACCFIT #Meded #ECGofTheDay



💽 🚳 🌧 🍌 🐧 🕤 🕼 🥬

9:26 PM - 5 Sep 2018

21 Retweets 44 Likes

Answer:

Bath Radiology Education @BathRadiologyEd · Sep

Bronchoscopically-delivered lung volume reduction (LVR) coils. Used in emphysema. Aims to improve air flow to healthier lung, to improve gas exchange and lung function.

M

#FOAMrad #FOAMed #FRCR #radiology #radiologist #RadEd #RadRes #RadReg #MedEd #ChestRad #medicalstudent



Use of Twitter in meded





Following

#infographics on joining in the #AnatQ weekly
@AskAnatomist #tweetchat to share with
your students!



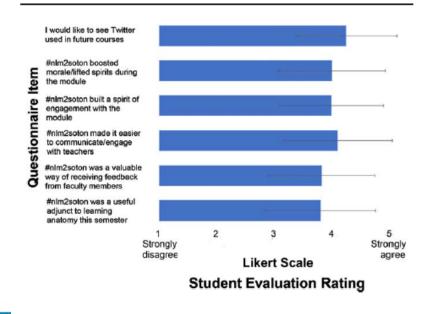


Social Media and Anatomy Education: Using Twitter to Enhance the Student Learning Experience in Anatomy

Catherine M. Hennessy,^{1*} Emma Kirkpatrick,² Claire F. Smith,¹ Scott Border³

¹Department of Anatomy, Brighton and Sussex Medical School, University of Sussex, Brighton, United Kingdom

²Southampton Clinical Trials Unit, University of Southampton, Southampton, United Kingdom ³Centre for Learning Anatomical Sciences, Faculty of Medicine, University of Southampton, Southampton, United Kingdom



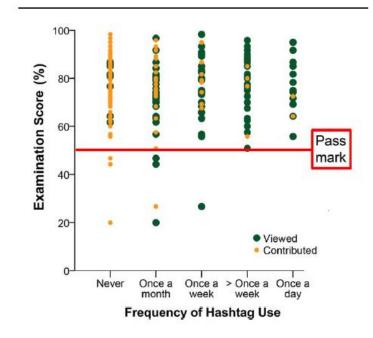


Figure 2.

This graph depicts that on average, students perceived that the hashtag affected various aspects of their NLM2 anatomy course learning experience in a positive way, based on their questionnaire ratings. The lines for each bar represent \pm standard deviation.

Figure 3.

A visual representation to show that frequency of viewing the hashtag had a negligible positive effect on student examination scores and frequency of contributing had no effect on scores. Students who failed the course reported low engagement frequency with the hashtag.

Ask an Anatomist: Identifying Global Trends, Topics and Themes of Academic Anatomists Using Twitter

Madeleine J. Marsland, Michelle D. Lazarus*

Department of Anatomy and Developmental Biology, Centre for Human Anatomy Education and Monash Centre for Scholarship in Health Education, Monash University, Clayton, Victoria, Australia





Based on Allan, B. (2008). Knowledge creation within a community of practice



Use of podcasts in meded

- Literature review of podcasting in meded (Kor J Med Ed, 2017) = 84 articles
 - o Basic sciences, clinical education
 - o 10-20 min, mean 18 min.
 - Most reaction outcomes > learning >behavior
- Podcasts resulted in superior knowledge gains over text for orthopedic topics (J Surg Educ, 2017)



Use of podcasts in meded

h	a	
U	anatom #Anat(

FOR MEDICAL STUDENTS AND THE MEDICALLY CURIOUS IN THE COMMUNITY NEW EPISODE RELEASED FIRST FRIDAY OF EACH MONTH!

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Welcome to Ask Anatomist!

Here you will find the latest episodes of the podcast, keep track of conversations taking place on Twitter, as well as find relevant notes and resources for each episode of the podcast.

Podcast Episodes

Ask Anatomist Episode 7: Inflamati	Soundclout Share
	ETET
	▶ 70
Ask Anatomist - Episode 7: Inflamation - When it is right and when it is	- ▶ 76
Ask Anatomist - Episode 6: Pelvic Floor and Urinary Incontinence	▶ 189
Ask Anatomist - Episode 5: Heart Attacks	▶ 156
💼 Ask Anatomist - Episode 4: Macular Degeneration and Eye Anatomy	▶ 117

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E G H b	DrBartox istology question. For light microsco e used for peripheral nerves to contr ssue? @Chapman_Histo @AskAnal	ast myelin to axonal
E G H b	istology question. For light microsco e used for peripheral nerves to contr	ast myelin to axonal



Anatomy Education Podcast

Follow: @AnatEducPodcast Discuss: #AnatPodcast Visit: anatomypodcast.co.uk Subscribe: iTunes, Stitcher & Spotify

Coming Soon...

Question and Answer Podcast on Scholarship of Anatomy Education

Dr Michelle Lazarus and Dr Megan Sumeracki will answer your questions on how to carry out anatomy education research!

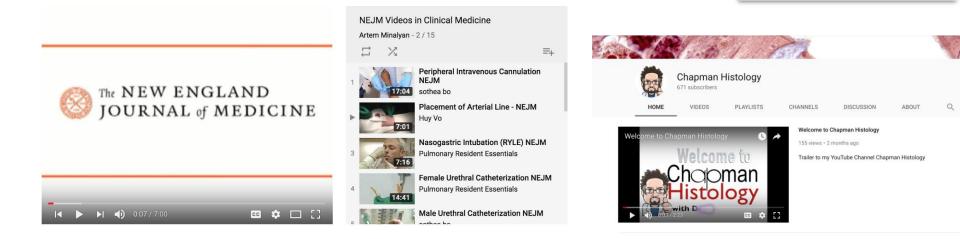
To post a question please visit the Contact Page at anatomypodcast.co.uk or use #AnatPodcast & #AnatQ

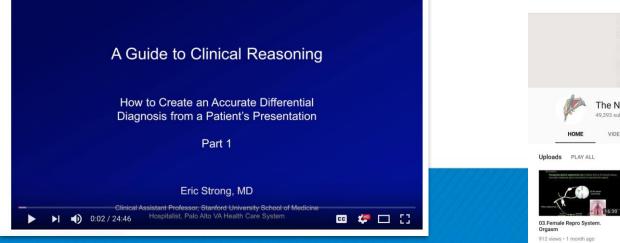


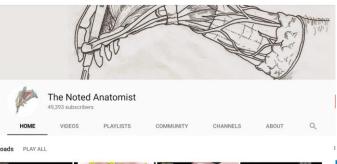
The Anatomy Education Podcast is supported by the American Association of Anatomists. For information about upcoming events, membership details and much more, visit www.anatomy.org.

vr information: Dr. James Pickering, Division of Anatomy, School of Medicine, University of Leeds, nait: j.d.pickering@leeds.ac.uk; Twitter handle: @accessanatomy

Use of YouTube in meded <a>PouTube









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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

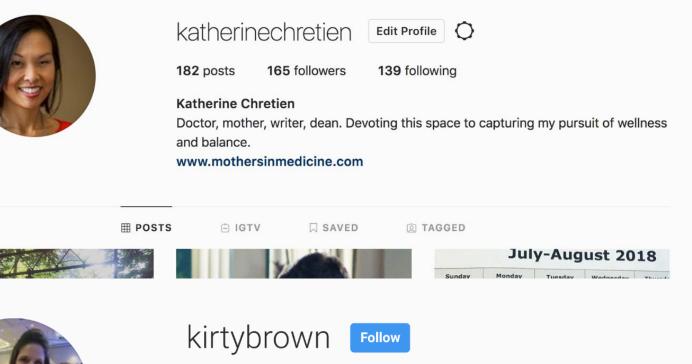
Amin Azzam, MD, MA, David Bresler, MD, MA, Armando Leon, MD, Lauren Maggio, PhD, Evans Whitaker, MD, MLIS, James Heilman, MD, Jake Orlowitz, Valerie Swisher, Lane Rasberry, Kingsley Otoide, Fred Trotter, Will Ross, and Jack D. McCue, MD

Research Article

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

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

Know thy platform!







599 following

Kirsten Brown

#anatomy professor at #gwsmhs. #deltagamma. Girlfriend of @jmneidich. Mostly
food posts asking #willjimeatthis.
I love my job and my life!

Case studies for social media use in medical education

Case: Buff and Blue Anatomy

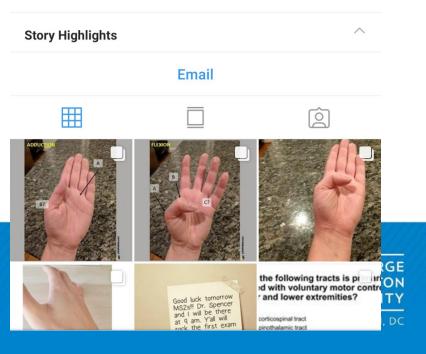
- **Problem**: Reduction in formal instructional time for the anatomical sciences (Drake et al., 2009; Drake, et al., 2014; Halliday et al., 2014).
- Aim: Determine the efficacy of social media-based instructional technology as a means to supplement traditional anatomy instruction
- Setting: 15 week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



BuffNBlueAnatomy

Education

#anatomy page 4 #GWSMHS. Managed by @kirtybrown. Posts are for educational purposes only. Part of research project on #SocialMedia and #meded goo.gl/XQUWqT



Questions before I started...

Outcomes? Student perceptions and engagement

> Value added? Novel, instant feedback, formative assessment

Goals? Bridge gap in formal instructional time

> Social media platform? Instagram

Study Design

Survey Instrument

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



buffnblueanat

146 followers

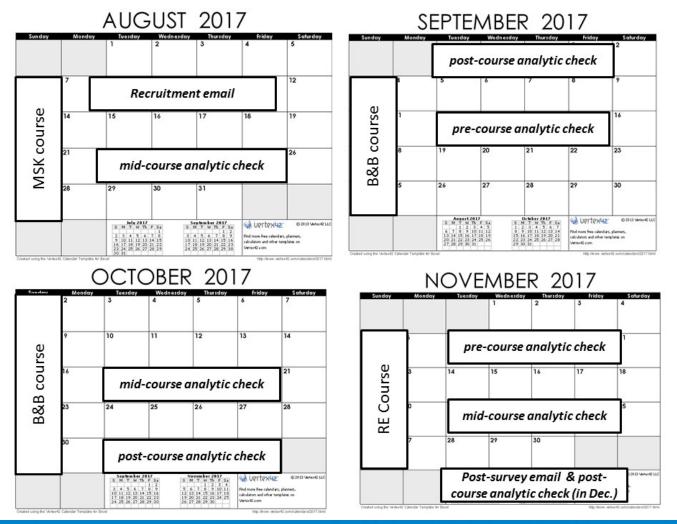
+6 in the last 7 days 108 posts

+11 in the last 7 days

2,428 impressions



Study Design



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What did I post?



153	250	16
posts	followers	following
Promotions		Edit Profile

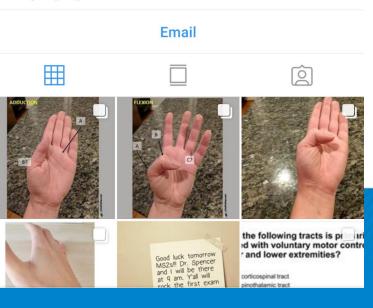
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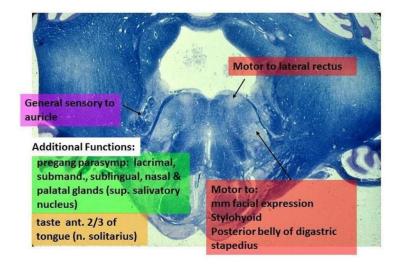
BuffNBlueAnatomy

Education

#anatomy page 4 #GWSMHS. Managed by @kirtybrown. Posts are for educational purposes only. Part of research project on #SocialMedia and #meded goo.gl/XQUWgT

Story Highlights





View Insights Promote

buffnblueanat Here's a swipeable quiz on cranial nerve nuclei for CN VII. This is a cross section of the pons at the level of the facial nuclei.

- 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!





buffnblueanat

What did I post?



153 250 16 following posts followers Promotions **Edit Profile**

BuffNBlueAnatomy

Education

#anatomy page 4 #GWSMHS. Managed by @kirtybrown. Posts are for educational purposes only. Part of research project on #SocialMedia and #meded goo.gl/XQUWqT

Story Highlights

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Email





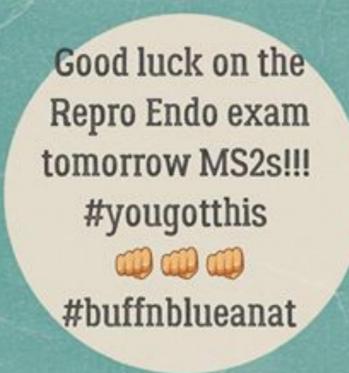




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and lower extremities?

porticospinal tract



View Insights



33 likes

buffnblueanat And that's it MS2s!! Good luck on your exam tomorrow! If you didn't know tomorrow is your last exam in

WASHINGTON UNIVERSITY WASHINGTON, DC

Promote

ト

What did I post?



153 250 16 posts followers following Promotions **Edit Profile**

BuffNBlueAnatomy

Education

#anatomy page 4 #GWSMHS. Managed by @kirtybrown. Posts are for educational purposes only. Part of research project on #SocialMedia and #meded goo.gl/XQUWqT

Story Highlights

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Email









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and lower extremities?

corticospinal tract





View Insights

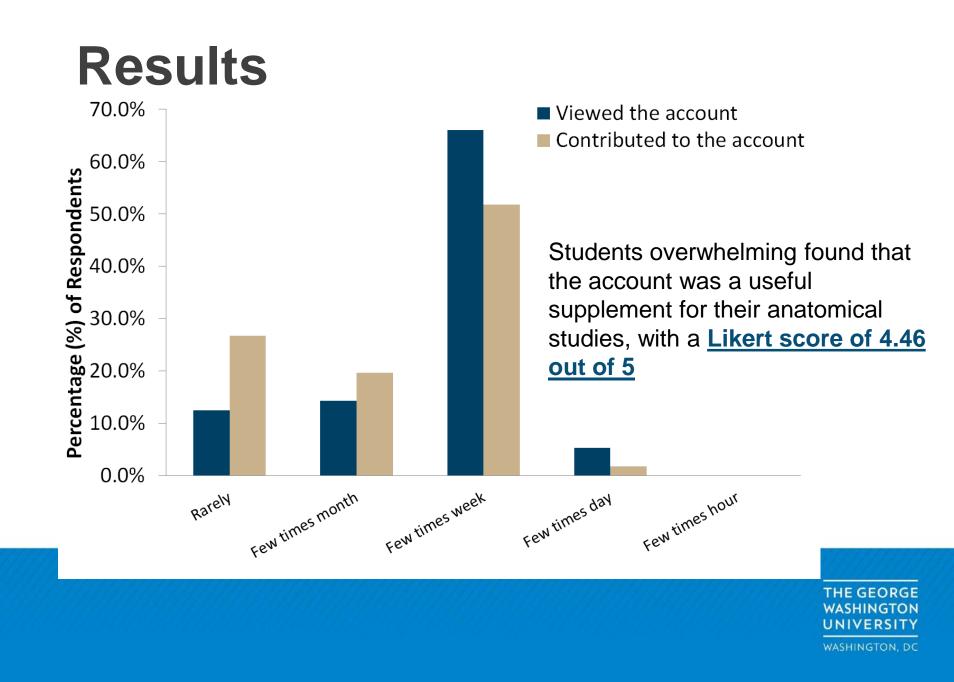


Liked by gwsmhs and 28 others

buffnblueanat Very lucky to have our outstanding clinical lead and recent #awsmhs Distinguished Teacher Dr. Aviva

UNIVERSITY

Promote



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"

resource

review

posts

studying

quizzes

useful

learning

tool

posts

helpful

contentiped

study

time

study

account

account

helpful

material

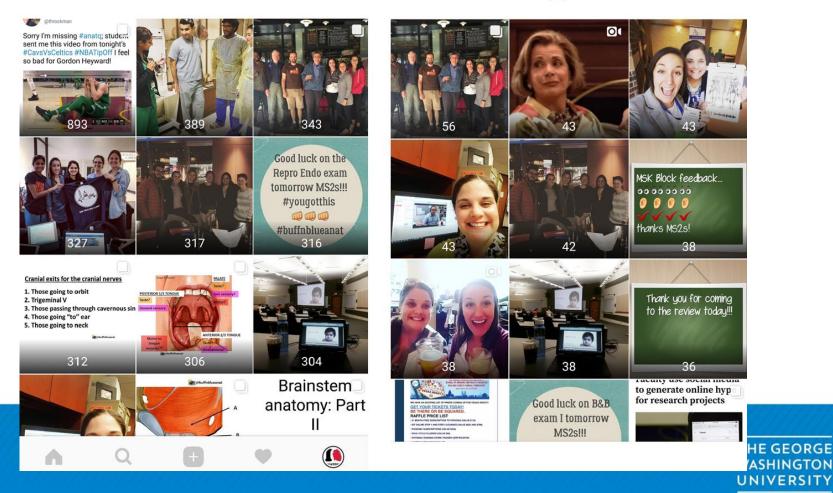
love

Results

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

Impressions

Engagements



WASHINGTON, DO

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...

Outcomes? Satisfaction, engagement, reflectivity

Value added? Asynchronous, discuss issues as they happen, dialogue, anonymity?





Instructions

"Requirement: A minimum of two reflective posts per 4week 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."

WHITE COAT REFLECTIONS

Medicine clerkship epiphanies



« The Underlying Cause

Care for the Uncaring

September 20, 2007 by learningmedicine | Edit

In college, I had the most eccentric, but brilliant premedical advisor known to man. One of the things he taught us freshman year was, "When med schools ask you why you want to become a doctor, don't tell them 'Because I want to help people.' Firemen and janitors help people too." This and other sage advise from him got me into medical school, but the truth remains- I applied because I wanted to learn how to help people. I wanted to help people feel better physically, mentally, and emotionally by treating what ailed them. We've all heard the proverb, "It's better to give than to receive" and it holds true even in medicine. As medical students, we go to work with the hopes that in addition to preventing ourselves from looking completely dumb, we will help our patients live better lives. In the movies, medical doctors diagnose and treat the disease, patients' symptoms resolve, doctors are thanked whole-heartedly, and they feel like heroes. Well, on the stage called the "real world," some patients haven't read the script.

That thingy » RECENT POSTS The decision The System 586 584 PPD

RECENT COMMENTS

11620mpc on The System kchretie on The decision waitman on ...

kchretie on New Reality

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

Katherine Chretien, MD^{1,2,3}, Ellen Goldman, EdD², and Charles Faselis, MD^{1,3}

¹Washington DC VA Medical Center, Washington, DC, USA; ²George Washington University Graduate School of Education and Human Development, Washington, DC, USA; ³Department 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

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

J Gen Intern Med 2008



- 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

J Gen Intern Med 2008

Important considerations

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





Wrap up





Questions?





Thank you!

Kirsten Brown: kmbrown@gwu.edu Katherine Chretien: kchretie@gwu.edu

