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TITLE: Teaching Tip: Developing an Intercollegiate Twitter Forum to Improve Student Exam Study and Digital Professionalism

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#VetFinals has been developed as a novel online Twitter teaching event, designed to
develop and support inter-collegiate veterinary teaching utilising social media. Twitter use
within universities has been suggested to be beneficial for education of undergraduate
students in other fields. This ‘teaching tip’ paper describes a project using Twitter to host
online exam study sessions which has been a highly successful collaborative effort
between the Royal Veterinary College and Nottingham Veterinary School. Over four years
the #VetFinals project has developed into a long term, self-sustaining enterprise. This
initiative provides a semi-structured means for exam preparation by students, with direct
real-time input from a member of faculty, but it also creates a network of peers both
horizontally across institutions and vertically throughout year groups. Similar to other
disciplines, an anticipated outcome of the project was to contribute to online
professionalism experience of students. This has importance due to recently highlighted
deficiencies within the veterinary community of professional conduct and errors in
interaction in the public domain on social media. Analysis of the success of this endeavor
will be available in a future publication.

Keywords:
Twitter; social media; exam study; revision; inter-professional; lifelong learning

Background
Twitter is a key Web2.0 micro-blogging social media tool which was created in 2006 and
currently has approximately 228 million active users sending 500 million messages
(‘tweets’) per day.¹ Twitter’s unique format makes it an amenable social media format for
ongoing public dialogue, however, it is also ideal in the academic setting for ‘ticker-style’
news feeds and as an interactive tool for students and collaborators. It is currently used
by many academic institutes to promote their work and by individual academics to promote themselves and their research, as well as being used by public bodies and charities (such as @RCVS_UK). Currently, all UK veterinary schools have an online twitter presence and use this tool to actively recruit students and promote research.

The inherent nature of Twitter as a collaborative environment and the principle of peer-to-peer sharing dovetails with recent trends in higher education towards student-driven, interactive teaching. It provides the ideal platform for open online learning, whilst maintaining social interaction and connection opportunities. Twitter can not only support informal learning beyond the classroom, but several controlled studies have demonstrated positive benefits of Twitter for more formalised academic and co-curricular discussions. Students and faculty have both been seen to engage in ways that transcend, yet still complement, traditional classroom activities. Increased engagement and grade averages have been demonstrated qualitatively and quantitatively and provide evidence of the benefits of Twitter as an educational tool in many disciplines.

How Twitter works

Twitter limits users to sending “tweets” of 140 characters or less which can include images and shortened hyperlinks to any website. This presents the unique challenge to users of interacting in precise, concise, and information-dense writing. Although it is possible to make Twitter accounts private, the tool is predominately designed as a public discussion and news forum and as a result places a burden of acute public scrutiny and professionalism on the user. Notable errors in judgment by public users have resulted in numerous legal challenges.

The use of Twitter is greatly enhanced by the utilization of hashtags (“#”) to ‘mark’ tweets so that users can follow conversations on a particular topic. Tweeting from their own individual account (identified by the @ symbol) users can include a specific hashtag in order to engage with a specific conversation or group of users. The Twitter software counts hashtags which are appearing regularly in tweets and records the most frequent in a league table which changes on a regular basis and allows users to identify popular (“trending”) topics. It is this use of hashtags which facilitates most educational uses of Twitter across networks of users who may not know each other personally.

#VetFinals project

In this paper the #VetFinals project will be described as a case study for the teaching of veterinary students using this medium, to assist other veterinary educators considering using Twitter for teaching and learning activities. Subsequent publications will aim to evaluate its success.

In 2011, an inter-college initiative between staff at the School of Veterinary Medicine and Science, University of Nottingham (SVMS) and the Royal Veterinary College (RVC) piloted a twitter forum to assist veterinary medicine students at both institutions in preparation for their final year examinations (in the UK this is advertised as an exam revision session as this terminology is congruent with UK veterinary students). The hashtag #VetFinals was used for students to interact with an online academic on a student-selected topic, at set times, as part of a distance-learning facilitated exam preparation seminar. These live twitter case discussions were then archived into a Storify, with additional commentary and added media to facilitate student study. The pilot endeavour was anecdotally well received by the undergraduate students who participated in the live twitter debates, and those who read the summaries subsequently posted online.

#VetFinals online teaching has continued to run for four subsequent years and has
developed into a fully functional long-term educational tool that seeks to promote student learning and develop an intercollegiate, inter-professional, life-long learning social media network. Over the years of the project, more veterinary schools and students have joined both as participants and as faculty facilitators. In 2015, staff facilitators from Bristol, Cambridge, Glasgow, Edinburgh, SVMS and the RVC have participated in the project which has increased the student following of the @VetFinals Twitter account accordingly.

How #VetFinals works

Between the months of January and June each year a #VetFinals session runs on a weekly basis. This typically occurs on a Tuesday or Thursday evening at 20:00 GMT. Each session runs for approximately one hour and covers a distinct topic or discipline under the facilitation of an expert in the area. Over the course of the season, several different topics will be covered which cover many aspects of veterinary education.

The sessions take various forms but normally revolve around a single case or a disease paradigm, e.g. The Blocked Cat. There is a great deal of flexibility in how each session is run, but typically they start as a presentation of the case as from the owner, and then the students engage through asking questions to gain bits of information relating to history and diagnostics. The case will progress through prompted questioning until the students have resolved the case and answered all questions surrounding it. It is not uncommon for the sessions to pause during the discussion of a case to investigate further some area of physiology or pharmacology relating to the case. The use of videos and photographs by the expert are encouraged, however it is important to prepare this material prior to the session and ensure anonymity in such a public forum.

The role of the academic facilitator is a short, but intense, one. It may only last one hour but the intensity of responding to suggestions, answering questions and keeping control of the session can be arduous. The facilitator guides the students through their learning and discovery of a case or scenario, and prompts them to make appropriate clinical decisions. This is an ad hoc teaching format and one of the potential benefits is that the participants can direct the conversation themselves. Consequently, it is not uncommon for students to move the discussion in unexpected directions through their investigation so selecting cases that allow plasticity is highly advantageous. Some topics lend themselves to a different form of division than case studies, for example a toxicology event may be best divided by multiple toxins, or common toxins to species etc. Multimedia elements can be uploaded for students to examine during the case when this is considered to be helpful to assist the students in their problem solving e.g. ECG traces or radiographs. However, it is important to anonymise all patient information online. It is also possible to add links to online journals or video techniques if necessary to provide additional learning materials.

Preparation

Preparation for a #VetFinals event is simple and requires minimal time. A hypothetical case is selected by the facilitator for the students to investigate and the story of the case investigation and diagnosis is broken down into about 45 pre-written tweets. These consist of a collection for descriptive tweets about the case (e.g. signalment or history) and several questioning tweets where the student participants are asked questions about the case e.g. “what type of imaging would like to undertake in order to assist your diagnosis?” The questioning tweets are a key element which guide the student interactions. They should be open to allow the students to think and engage in the response, but not so open as to allow them to take the case investigation in inappropriate directions. These case investigations are a semi-guided linear case investigation.
Planning the ratio of question tweets to information tweets is important. Too many questions can result in the sessions running longer than one hour, too few and the students are not engaged in the process but rather just reading a twitter case. Most #VetFinals cases have between 8-12 specific questions for the students to answer.

If digital media, such as videos and photographs, are being used then it can more efficient to pre-load these onto a website and then provide a link to them during the session. Hyperlinks can use a great many characters in a tweet, so using facilities that shorten URLs is highly advantageous.

During the event

Sessions can be slow to begin with as students join the discussion. It helps to open the discussion with an introduction of the facilitator and an invitation to the participants to answer a generic question such as “which vet school are you tweeting from?” This early engagement with a simple question acts as an ‘ice-breaker’ to remove barriers to communication. It also helps the facilitator identify the number of participants.

When the participants start responding, it is important allow the discussion to unfold before steering it if necessary. These sessions are not intended to be an ‘ask the expert’ or Q&A session, nor a one on one discussion with each twitter cohort, rather an interactive group discussion forum (albeit built around one topic and steered by a facilitator). Validating some accurate responses can be helpful and can be used to encourage quiet students, but it is rarely possible to acknowledge every correct answer. Prudent use of tweets to correct and encourage should mean the facilitator does not dominate the discussion. It is important to not end up in a one to one conversation with the more actively engaged students however responding directly to individuals. Seeking out the more infrequent tweeters as a group and encouraging them by directly engaging them using their @ handles can help to ensure all participants feel valued. As long as care is taken not to single out students who may be shy and at a level of study where they would prefer to primarily watch.

There are delays when working with twitter and these must be factored into the timing of the event. If an image is uploaded for the students to review, then a time allowance must be granted to factor in the internet speed of participants. For a radiograph, a 4 minute allowance will provide for students to download, view and comment on the image. It is worth considering if such an element adds value as it can be a stall to discussion. Different technologies and internet speeds also influence the rate of engagement. Remaining alert to delayed answers from students and make sure to acknowledge their involvement when possible.

Figure 1 presents an example of short interaction during a #VetFinals session. Here the facilitator is asking the participants about the poor reproductive rates on a dairy farm specifically about early embryonic loss (EEL). After a series of questions about the history of the problem and some physical exam findings the facilitator narrows down the questioning to investigate if the problem may be caused by male or female cows. Leading to their opening question in the figure. The responses below the question are from four final year veterinary students from three different veterinary schools, who not only answer the original question posed by the facilitator, but also interact and correct each other. These students are do not know each other personally, except through interactions on #VetFinals.
After the event: Storify

After every #VetFinals session, a student facilitator collects together all of the tweets that were sent during the session and organises them into a single story of the event. This is done using the Storify software. Storify is an online application that can collate tweets, and other documents, together to produce a ‘story’ of the event. It does this automatically by identifying tweets containing the programmed hashtags. Once Storify has collated the tweets, it allows the user to remove or reorganize the tweets and add in free text, or additional media such as hyperlinks to articles, movies or embed pictures. This task is undertaken by the staff facilitator who can then approve the final Storify page before it is sent out to the participant list and displayed on https://vetfinals.wordpress.com. Students may download a pdf version of the Storify to add to the study materials, which becomes an enriched media case study report.

Proposed benefits to learning

The aims of the #VetFinals project are not only to provide an inter-college platform for preparation of veterinary students’ final examination, but also to promote peer-to-peer education. In addition, this project offers the potential for informal learning regarding participation in professional online interactions, not available elsewhere in the formal curriculum.

Role modelling social media use: additional benefits to online professionalism

Digital professionalism is a current ‘hot topic’ in clinical education, because of the visible nature of social media interactions. Recent guidance documents from the Royal College of Veterinary Surgeons and the GMC highlight the need for care when communicating as a professional in the public domain. Veterinary students are prone to over self-disclose on public social media sites, a trend which seems to persist beyond graduation. This can have serious ramifications for their career, their college and the profession of which they are a part. A recent study of veterinarians in Ontario showed that almost one quarter of early career veterinarians had material on their Facebook pages that could bring themselves, their practice or the profession into disrepute. This demonstrates that there is an urgent need to educate students on the risks inherent in discussing professional matters at an inappropriate level.

The use of social media such as Twitter with clearly articulated guidelines for student participants is therefore an ideal way for students to learn how to engage appropriately with social media, led by an appropriate mentor who can role model expected behavior. The #VetFinals website, maintained by students, contains information and advice about digital professionalism and clear instructions for appropriate use of this medium. This includes information about being mindful of the public perception of the conversation, not revealing any confidential material, not posting any content that is too graphic, and ensuring that the discussion has a gravitas appropriate to the nature of healthcare discussions. Occasional statements are issued that state that this forum is not intended for the public to obtain professional veterinary advice but it is a training medium for students. Staff facilitators are provided with copyright guidance, also via the #VetFinals website, to ensure confidentiality is maintained and also provided with instruction on handling any unprofessional interactions. Therefore, via their interactions on the #VetFinals public forum, students are anticipated to become familiar with acting professionally on social media. Research is being conducted to explore the effectiveness of this hypothesis and will be submitted in a future publication.
Future of #VetFinals

Anecdotally students and facilitators have enjoyed and valued the past four years of #VetFinals sessions. This project now plans to evaluate the concept more fully through quantitative and qualitative methodologies. The results will be made available in a later paper. It is proposed that this platform may provide for future communication between students post-graduation. We anticipate the network will improve the new graduate experience by providing a safety net of communication with their cohort colleagues and back to their university lecturers. This initiative aims to also promote greater and continued alumni engagement and connection with their alma mater, hopefully yielding positive benefits for all stakeholders.

We would like to encourage final year veterinary students from all veterinary schools, in the UK and globally, to take part in future sessions. To find out about the upcoming dates, please visit https://vetfinals.wordpress.com Please also advertise these sessions within your schools. If you would like to offer your services as an expert facilitator, please get in touch with us.

Conclusion

Additionally, we would also like to encourage veterinary educators to consider the use of twitter as a potential teaching tool. It is a novel teaching environment for students but has advantages in being free and simple to use. Twitter is suitably styled to be a news forum which differentiates it from other types of social media which may contain more personal material, making it well suited for educational uses.

A future publication will make available the analysis of the #VetFinals project which will include elements of professionalism as well as the educational value of such an endeavor.

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References


Storify is a web tool commonly used to collate various news stories or twitter feeds about certain events. [https://storify.com](https://storify.com)
Vet Finals @VetFinals

Have we localised this to a male or female problem?! #VetFinals

Sinead Kenna @SinbadKenna

@VetFinals more likely female as suspect EEL but could still be male + incorrect detection #vetfinals

Robert Peckham @PeckhamRobert

@SinbadKenna @VetFinals Could poor semen lead to EEL? #vet finals?

Sinead Kenna @SinbadKenna

@PeckhamRobert @VetFinals no, with poor semen they wouldn't conceive #vetfinals

Rory Cowlam @therorycowlam

@SinbadKenna @PeckhamRobert @VetFinals Could be infectious from the bull though #vetfinals

Christine Pollard @cpollard99

@therorycowlam @SinbadKenna @PeckhamRobert @VetFinals Campylobacter! #vetfinals

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