

Transcript

[00:00] [music]

Derek Bruff: [00:03] Welcome to "Leading Lines," a podcast on educational technology from Vanderbilt University. I'm your host Derek Bruff, Director of the Vanderbilt Center for Teaching.

[00:14] We have one more interview for you this spring before we take a little summer break. I thought it would be fun to share my all-time favorite use of Twitter in teaching. It's an example I work into all of my workshops, because it's such a great illustration of alignment between learning goals and technology use.

[00:28] In this episode, we hear from Margaret Rubega about her birdclass assignment. Rubega is an associate professor in the Department of Ecology and Evolutionary Biology at the University of Connecticut. She's also Connecticut's state ornithologist and she teaches an ornithology class at UConn.

[00:46] In this class, she asks her students to, wait for it, tweet about tweeters. The assignment asks students to take to Twitter and share their observations of the birds they see on their way to class, as they go to their jobs, or wherever they might happen to be.

[01:02] Some examples. Her student Megan tweeted, "So many songbirds in the top of a bare tree near my horse barn. The branch was bowed. Best acoustics, or safety in numbers?" Another student, Victoria tweeted, "If it wasn't for broken wing display, I wouldn't have noticed this camouflaged killdeer nest on the levy." She included in her tweet a photo of this nest that was really hard to spot.

[01:26] Another student, Zachary, tweeted, "Went golfing today and heard five distinct calls from various bird species. The design of the fairways seems to divide territories. That sounds

like a pretty useful insight to me.”

[01:39] Students tag their tweets with a #birdclass. If you go to search.twitter.com right now and search for birdclass, all one word, you’ll see the latest batch of bird sightings from her students. Before you do that, listen to the short interview I recorded with Margaret Rubega a little while ago.

[01:54] [background music]

Derek: [01:55] As you’ll hear, she has very intentional reasons for giving her students this assignment.

Margaret Rubega: [02:03] I use the birdclass activity in my ornithology lecture. The class is fairly large for an ornithology class. It gets to upwards of a hundred people at a time.

[02:17] You can imagine that as a course in which people typically think of as an active thing when there’s no laboratory component, that’s a big group of people to try and get to think about birds in an active way as opposed to passively sitting there and listening to me lecture.

[02:40] I walk in to a population of people who if they’re fairly typical have spent many hundreds of hours watching nature programs on TV and, of course, nowadays on YouTube online. People have a lot of exposure to this sense of stories and information about birds being this really cool story about an exotic animal that’s somewhere else.

[03:11] Taking nothing away from these nature shows, which have taught a lot of people to value the natural world in a way that they otherwise would not, they have, unfortunately, fostered this incorrect outlook which is that the natural world, birds, mammals, you name it, is something exotic that happens somewhere else.

[03:36] I’m really very focused in the class on trying to get students to appreciate that the amazing, incredible, illuminating things that we talk about in lecture, the way that biology plays out in birds, is something that they can literally walk out of the building and see happening on the sidewalk right on campus. It’s not something happening somewhere else.

[04:04] You can say that, but it’s very difficult sometimes to get people to appreciate that. So, it occurred to me that I might be able to use Twitter in a sense to use their electronics against

them, to force them to use their electronics in a way that would make them look up from the electronics and see what kind of a world they're actually embedded in.

[04:32] They're supposed to, outside the classroom, post a tweet at least once a week that says where they are, what they're seeing in the birds around them and somehow connect that to course content.

[04:49] The tweets are not graded except to the extent that it's a three-point assignment. Every time you post a tweet, it's three points. You either achieve all three of those things, you tell me where you are, you notice something about the birds, and you connect it to course content. If you do all of those things, I give you all three points.

[05:13] There's a cap on the total number of points. My goals really were to use the tweets as a way to make the students take the course content outside of the classroom and internalize it, to see that what was happening—what I was talking about in class was actually happening in their world all the time.

[05:35] Initially, when I first started using the assignment, all I was really interested in was whether or not that was working. I didn't think too hard about the social aspect of the thing. I was much more focused on this is a tool to make them put in a place where I can easily get at these observations that I want them to make.

[06:05] As soon as we started using Twitter, I was posting to the birdclass list in order to encourage them, to give them examples of the kinds of things I was expecting them to post. The interest on the part of the students in having something that you could consider a conversation with me became apparent very early.

[06:35] When that started to really show, I got way more active about keeping track of their tweets in real time and trying to be responsive, trying to retweet their tweets so that a broader audience of people might see them, so that they could get feedback from people who were not just me.

[06:57] The social aspect of the thing has also created instructional value to this that I did not plan at all. As an example of that, it might have been in the second year that I was using the birdclass, the Twitter assignment, I went during spring break on a trip to Belize.

[07:19] I hadn't talked to my students about this ahead of time. On a whim because I had Internet access, I posted a tweet that said, "Hey, birdclass. Guess where I am." I posted my bird list for the day, some of the birds I had seen.

[07:35] Immediately, even though it was spring break, students were not in class, they did not have to be watching our Twitter stream, three of them came back and started trying to figure out where I was.

[07:47] In a course of a five-tweet exchange with me giving them nothing except the names of birds, which they then looked at the distributions of to try and localize where I were geographically, they figured out where I was, which blew me away. I was so excited.

[08:07] When I got back, I brought the student who got there first some stupid little souvenir as a prize. She took it from me, leaned in, looked me in the eye and said, "I learned more about geography in that tweet exchange than I did in all of high school."

[08:24] The students who it really works in every respect for, it works for because it's self-directed, because it's a real-life thing, because it forces them to discover things about their own world that have been there all along. That sense of discovery happens to them just when they're walking between classes.

[08:57] Having that tiny little sense of discovery be rewarded through however small a social interaction with me or someone else in the class, having it be acknowledged as a credit-bearing part of the course as something that I recognize.

[09:16] When you leave the classroom and it hits you that something you're seeing is what we're talking about, is what we're learning about, that's what I want from you.

[09:27] That's what I'm trying to accomplish is not that you regurgitate back to me the stuff that I told you, but that you take what we're talking about and you use it to put your own world, that you encounter everyday, in a new context, to see parts of it that you couldn't see before. That really belongs to them then.

[09:49] It's not just me. It's not me telling them what they're supposed to see, it's what they actually see.

[09:56] I have had experiences in which students who at the beginning of the course said very clearly they were taking the course just to fulfill an assignment, they didn't know anything about birds, they weren't necessarily, especially interested in birds that by the end of the semester, were going online on Twitter, correcting people who were mixing up swallows and swifts and being, "Wow, I can't believe you would mix those things up."

[10:25] Using Twitter as a way to teach other people, external to our community in the class, things that they had already learned.

[10:34] [background music]

Derek: [10:36] That was Margaret Rubega, Associate Professor of Ecology and Evolutionary Biology at the University of Connecticut. There's a lot I like about her birdclass assignment. It gets right at the goal of transfer, having soon to take what they're learning about birds in the classroom and apply it to new contexts and environments outside the classroom.

[10:55] Transfer is a really hard goal to reach with students and they need lots of practice at it. The birdclass assignment provides just that. It also provides Margaret with insight into how her students are making sense of the course material inside that she can use to refine and tweak her teaching approaches.

[11:11] This is what's called formative assessment in the literature -- assessment of learning that's done along the way, usually with pretty low stakes, for the purposes of providing students' feedback on their learning and informing instructor decisions.

[11:21] Technology can be really useful for formative assessment. Twitter in particular is good at making visible what Randy Bass has called thin slices of student learning.

[11:31] There's an immediacy to Twitter that's really helpful here. Students can record and share their observations in the field, which provides perhaps a more authentic snapshot of their learning than what they might report later when they're back in the dorm room or in the classroom.

[11:44] Twitter's short character limit, now 280 characters, is also just enough space for students to do the three things that Margaret wants them to do in their tweets, and it handles multimedia well. Students can, in some cases, capture photos of the birds or the bird

nests that they happen to see as they go.

[12:00] It really is the right tool. It's on their phone, in their pocket when and where they need it to capture these observations.

[12:08] This activity also helps to turn Margaret's class from a course into a learning community where students can learn with and from each other.

[12:15] The activity asks students to apply what they're learning to their personal contexts, the places and spaces they visit as they go about their week. Those contexts are all unique, which means that each student has something a little bit different to contribute to the birdclass activity.

[12:28] Since the students' tweets are public, students can easily see each other's contributions to learn from them and to be inspired by them.

[12:35] Margaret mentioned to me that this activity leads some students to actually do homework over spring break. [laughs] They will travel and they'll see birds they don't usually see, and then they tweet about them. They want to share what they're learning with her and with their peers. That, to me, is an example of a learning community and it's really neat.

[12:54] Our interview with Margaret in this episode was recorded for a free online course I co-teach called "An Introduction to Evidence-Based Undergraduate STEM Teaching," where STEM stands for science, technology, engineering, mathematics.

[13:06] We've been running this course with some partners at a few universities for a few years now. We've had almost 1,900 people complete the course. It's full of great examples of STEM teaching. The course itself is free and even better, all the videos we produced for the course, including our video interview with Rubega, are all available on our YouTube channel.

[13:24] Visit stemteachingcourse.org for links and for more information on that course. Also visit leadinglinespod.com for more on the Leading Lines podcast, including show notes for this episode which feature more information on Margaret Rubega and her work, as well as a link to the latest bird-class tweets on Twitter.

[13:40] Speaking of Twitter, we would love to connect with you there too. You can find

Margaret @ProfRubega. You can find me @DerekBruff. Our podcast is @LeadingLinesPod.

[13:52] I'd be interested to hear other examples of using Twitter or other technologies to help students apply what they're learning in authentic contexts. Please share if you've got ideas.

[14:02] I've heard of education faculty who would have students who are in classrooms, observing, tweet their observations. We have an engineering instructor here and Vanderbilt who heard about the birdclass example and had her students tweet photos and observations of civil and mechanical engineering examples that they saw as they went around town.

[14:26] There's a lot to this in terms of field observations and reporting to getting the [inaudible] of transfer and also some thin slices of student learning. I'd love to hear more examples.

[14:39] If you have suggestions for whom we might interview, that would be good to hear too. We'll be conducting interviews over the summer for our fall season.

[14:48] That's it for now. We are going to take a couple of months off this summer, but we'll be back in the fall with more episodes. Leading Lines is produced by The Center for Teaching, the Vanderbilt Institute for Digital Learning, the office of Scholarly Communications at the Vanderbilt Library, and the Associate Provost for Digital learning. This episode was edited by Rhett McDaniel and Jeff Sloop.

[15:07] Look for new episodes the first and third Monday of most months. I'm your host Derek Bruff. Thanks for listening.

[15:13] [music]

Transcription by CastingWords

