

## **Q&A with Emily Graslie**

### **Interviewed by Andrea Appleton**

Emily Graslie has a pretty cool job. She is chief curiosity correspondent for Chicago's Field Museum. She landed the position through her YouTube Channel, *The Brain Scoop*, in which she explores scientific topics with a disarming inquisitiveness. Graslie spoke with *Dimensions* about her passion for sharing science.

### **Emily, what exactly does a chief curiosity correspondent do?**

Oh! That's a great question. A lot of everything. So I do everything from handling all of the strategic planning, budgeting, pre-production of our channel. I'm basically a director for our series. Not officially in title, I just call myself the director from a production standpoint, at least when it comes to approaching the kind of video content we're going to be making, what our mission is for the year. I do a lot of program development for *The Brain Scoop*. We're branching out into the great wide world of podcasts, so I've been handling the program development of that series. I do a lot of outreach, I speak to a lot of classes here in the museum, through Skype, through digital media. I talk a lot about career development for a lot of undergraduate students, especially. I do a lot of events about women in science and supporting diversity in science. I could go on forever. Basically anything that comes my way is a question of "Does this fulfill the mission of our program?"—which is to support the research and collections work of natural history museums and also science communication initiatives and diversity in STEM [science, technology, engineering, and math]. So if it kind of falls under that bucket and we have time to do it, we'll do it.

### **You studied art in college. How did you come to be a science communicator?**

So I kind of grew up not really thinking science was a thing that I could do. I was very bad at science in school. I had Cs and Ds. And when you're going through public education, your test scores and your grades really outline what you think that you are capable of doing, unfortunately. So I never really thought that science was a thing I could do. I didn't do it. I was good in art, I got good grades in art, so I decided to go to art school instead. And I liked that I could make up my own way through art. Nobody's really telling you the kind of artwork that you have to make. You're just making what speaks to you and you learn how to justify anything you want to do. That's the beauty of critiques in art school.

So very close to graduating with my art degree, about a semester away from my spring graduation, I found out that we had a natural history museum on our campus. We had a research collection with about 24,000 specimens in it,

but no displays. And that was really weird to me. Because from everything that I knew, a museum existed to put on public displays, for people to come and look at and to learn about the natural world. And that was my first introduction to a research collection. And the first time I went into the museum, I just was blown away. From an artistic standpoint, it had everything in there that I ever had wanted to paint. It had all of these elements of the natural world that I could interact with and they were tangible. It wasn't just looking at, you know, plein air paintings or looking at images or doing image research online. But the interaction with the actual specimen I saw as a huge benefit to my artwork. So that's how I got introduced to research collections. And it was kind of a question of my last semester I was doing an independent internship in the museum, studying the specimens and creating a little portfolio about my work there. But the museum was so crowded. There was no place to put my sketchbook. And so I asked the curator at the time if I could move some of the specimens to the side so I could set up my sketchbook on the work table. And he said, "You can't move those because they haven't been accessioned yet and first they need to be accessioned, and then they need to be catalogued and then they need to be put away in this specific way." And he was like, "And unfortunately I don't have time to do it." And I said, "Well, if you teach me how to do it, I'll do it." And so he did.

So I went from creating artwork about the specimens to doing more collections work and helping out in the preparation lab. And I was amazed by how much I was learning. And I was also amazed by how much I liked telling other people about what this collection was doing. And so that's kind of how I started as a communicator. I went from creating work about the specimens to communicate their value to talking about the specimens in order to communicate their value. And that transition went from posting pictures on Facebook to my friends and family, who were a little weirded out about my new obsession of dead things, to creating a blog on Tumblr, which was UMZoology at the time because it was at the University of Montana, and then eventually morphed into this YouTube show, *The Brain Scoop*.

**Do you wish now that you had studied science, that you'd had the confidence to do that?**

A little bit. But only in a hindsight sort of way. I think it would really help with my vocabulary. I don't quite have the science vocab down. There are big gaps in my understanding about certain processes and methods. I've had genetics explained to me a million times and I'll never understand it, unless I was really seriously focused on learning. So there are certain gaps in my knowledge, absolutely. But I also really value my background in art. It's given me, no pun intended, an amazing perspective on the world of science. What they teach you in art is that you have a very limited amount of time in order to communicate a very complicated thought or idea. They do all these studies of people going through art museums and they'll look at a piece of artwork, look at the label, look at the art, and move on. So you have literally

seconds to convey an idea. And science communication is pretty similar in that way. The way that you structure your argument, the way that you lay out the idea, the way that you use certain visual cues or auditory cues. You're mentioning visual ideas so that people can paint this picture in their minds with their imagination. So I'm really grateful for my art degree. You know, you can't change the past or ask that question like, "Would I have?" or "What if?" I'm pretty pleased with how everything turned out.

**You have a very infectious passion for learning new things. Where do you think it comes from? Is it innate? Was it something about how you grew up?**

Yeah. My parents really fostered my curiosity. I was totally an outside kid. I loved things that move. I've always been fascinated by animals and the great outdoors and I'm lucky to have grown up in South Dakota, in the Black Hills, which has gorgeous outdoor recreational activities, and then I moved to Montana and kind of got to pursue that. So even before I was really involved in science, I liked observing the natural world. But I realized after working in the museum that I really didn't know what I was looking at. And once I started to learn more, once I realized that I could read up about the migratory pattern of a certain bird and then be able to be in a place in Missoula at a certain time to see them come in, it was like a way to connect with the natural world that enriched and empowered my life. Learning makes me happy. Learning contributes to my overall wellbeing. And so I just wish more people could experience that. I try to encourage other people to look into the world around them in that way because I really do think it can make you a happier person.

**That leads me to a question I was going to ask you which is, science literacy is not at a high point right now in this country. What do you think we could do as a society to encourage the kind of curiosity about science that you have?**

Those real world connections are really, really important. Especially when you're talking about topics in the natural world. People don't feel connected to glaciers and icebergs and polar bears. People are concerned about things in their own backyard and things that impact the world directly around them. So from a science communication standpoint, I think reiterating the fact that this is a global society and there are things, yes, happening on the other side of the planet that we ought to be concerned about, but let's just start in your backyard. Let's just talk about the things that are directly going to impact you. I went to a phenomenal presentation by a woman—I just blanked on her name. Monday morning is a little bit early for me. Anyway, she's an environmentalist here in Chicago and she works in I think Little Village is the part of Chicago—Hispanic community, high rates of crime, and in her backyard was, I believe—I shouldn't even be saying this story, I didn't do enough research. But there was a coal factory essentially in her neighborhood and she didn't care much about it until she took her young

child to the doctor and he was diagnosed with asthma when he was 3 months old, just a baby. And she realized that she needed to do something about this factory. And that there were probably people in her community who were suffering from the impact of it. And they got it shut down. I mean it took years, it took like a decade, but they shut it down. And she really stressed the importance of going around your own neighborhood and checking in with your neighbors and seeing what their concerns are. And starting that dialogue on a more localized level. And that is one way you can really resonate with people who might not be concerned with environmental issues currently. And that's just environmental issues. There's a lot of different ways you can look at these overwhelming topics.

**You've done everything on camera from exploring bat caves in Kenya to skinning a wolf. Is there an episode of *The Brain Scoop* that's particularly close to your heart?**

Oh, yeah. The one where I left Montana, I have a hard time watching it. I watch it and get waves of nostalgia. The first season of our show was almost like a prelude, or a pilot series to what I eventually ended up doing with the Field Museum. But Michael Aranda, who created those videos, going from Montana to Chicago, did such a fantastic job of documenting the human journey of what I was doing. He was there from the very beginning, from when I got the opportunity to start a YouTube show, when I had no experience as a science communicator, and at a time when I really doubted my ability to do this. The wolf series was a total gamble. I had so little faith in myself that I was going to be able to carry this out that I was like let's go and do something big and if it turns out the internet is just totally grossed out by this, or if that museums across the country email me furiously upset with how I handled the processing of this animal, and if the trolls come out in droves, then it will have been a good but a short run. And I was so surprised that that didn't happen at all. People loved it. And people were super interested in hearing my perspective. And museums were super interested in hearing my perspective. And that was a kind of validation that I wasn't at all anticipating. So going from that whole first start of the show was my development as a science communicator and then landing a job at the Field Museum was the confirmation that I needed that we need other voices talking about science. We're never going to reach people on a human level if you're only hearing about scientific topics from people in lab coats who have Ph.D. after their name. Science is something that impacts everybody and I think the Field Museum made a pretty strong statement in their investment in me as a creator. And so a lot of that is documented in that "Farewell, Montana" episode when I was walking out of that museum for the last time. I didn't go back for a year, until I got invited back to give a talk at UM. From that transitional period, that video's always going to be close to me, on a personal level.

**Back to dissections. You've done a lot of them and you seem to really enjoy them. What is it about them that appeals to you?**

It goes back to that hands-on learning, that excitement of learning. You know, I can sit here in my office and read PDFs of studies all day. And something will stick out to me and I'll be like huh, that's interesting, I didn't know that. But dissections are a fully immersive learning experience. You get to get in there and you find out that you ask yourself questions that you couldn't have imagined if the information was just being presented to you. It is learning in real time. There is something that happens when you're doing a dissection. You're not thinking about your taxes, you're not thinking about the meeting you have later today. You're not thinking about anything rather than what's right in front of you. It's the same kind of immersive experience that I enjoy when I'm painting. You know I was in my studio last night and I didn't realize that hours had passed. I was just zoned out and my only focus was the canvas in front of me. And dissections are like that too. You kind of get into this Zen meditative state where you're going through the process. Once you're trained and you don't have so many questions on should I do it this way or this way, you can just kind of focus in on what is right in front of you. And you get to not only learn the anatomy and the physiology in real time. The terms aren't going to come to you like osmosis. It's not like you're doing it and all of a sudden you learn everything about the respiratory system and all the terminology, but the information is coming to you in that way. I don't know, it's just an enjoyable experience for me. I learn something new every time. It's not even learning about visually what's in front of you. The smells are amazing. You get to learn what a possum smells like. And that's kind of an odd way to go about the world. But now every time I see a possum, I think you know every time a possum comes in the prep lab, they always have a full bladder. It's like the weirdest thing. I know something now about that individual animal. Those are the connections I really appreciate. It also reinforces this idea of individualism in the organism you're looking at, and that gives you a whole new appreciation for the natural world. Like you don't have raccoons in your backyard. You've got a group, a familial group of raccoons in your background, and set up a couple of cameras and you can watch them. And learn things about their life. So when you have the specimen in front of you, it's that confirmation too that there are individuals of all of these organisms. They aren't just giant groups that are lumped into common names and categories, but that we share the world with all of them. You could name every animal if you wanted to. And that's really exciting.

**So you mentioned your studio. You still make art.**

I'm getting back into it. Yeah. After a couple years of really crazy scheduling and not finding quite the work-life balance that would give me time to have a studio, yeah, actually I just bought a house that has a finished attic and it's perfect for an art studio and it's kind of away from whatever else is happening in our house, so I've gotten back into it.

**In 2013, you did an episode called “Where My Ladies At?” about the sexist comments that came your way once you became a public figure. Have things improved since then?**

Well, I kind of thought they had. But now we see they have not. So when I made “Where My Ladies At?” I just wanted to vocalize some of my grievances as a creator. It was a very stressful period in my life. I was moving away from my friends and family and coming to a big city and I’d never lived in a big city and I was taking on a whole new big job. And I had business cards. It was a very overwhelming period in my life and I couldn’t believe that with everything else that was going on, I also had this annoyance of dealing with everyday sexism online. And I felt like I couldn’t go to my colleagues to talk about. It’s a hard thing to complain about because everything else from the outside looks so good. I have a great job. I get to be excited about the world on camera. So what right does it give me to complain that this is happening? So it was something that I really internalized and didn’t really want to talk about that part of my job and then I realized I should talk about this. Nobody else is talking about this and I’m experiencing it. And if I’m experiencing it, then I bet a lot of other creators—you know, female; LGBTQ [lesbian, gay, bisexual, transgender, questioning/queer]; minorities—are also probably dealing with these feelings.

So I made that video and things really did improve for my audience. Things improved for me. It opened up a whole new door to talk about this very uncomfortable but very real problem. And it gave me a platform on which I felt confident that I could continue talking about these issues. Because they were having an impact on me and I saw how they were impacting other people. Especially young people who wanted to try out this world of science communication but who felt held back because of the vitriolic nature of the internet. And I thought what an awful way to stifle those voices. The way that the internet could create so much fear in a person that they wouldn’t want to pursue their passions. That’s a level of control that shouldn’t exist. So things certainly did improve for me in many ways after that video. It boosted our audience numbers. And it changed the nature of my comment section. People in my audience began to stand up for me and they would address those comments, and gave me the confidence to delete those comments when I saw them on my channel.

But I think with the current climate of the internet, and the current political climate—and this shouldn’t get political, I’m not going to go down that route—but there are certain things that are happening in the media that have opened up those gates again for this kind of intolerance. And what’s even more unfortunate is that continuing to speak up against them labels somebody as a social justice warrior or labels somebody as you’re vying for attention or it’s identity politics. And so those voices again unfortunately seem to have the upper hand on a lot of people online. And I am not going to not address it. I’ll just put it that way. I will continue to fight those kinds of comments. And I will continue to create a space on the internet that is

comfortable for people to express themselves. And we're going to do a lot of videos in the next year that are about cultural appreciation, that are about sexism, that are about touchy subjects. And I fully anticipate the kind of reaction we're going to get but it's not going to prevent us from continuing to make the content that we think is important.

**Have you heard from women who work in science on this topic since you aired that episode?**

Every single day. I would say every day somebody reaches out to me about that video. Or I get a letter from somebody who says, "I wanted to pursue a degree in engineering but it was the 1970s and I was the only woman in my field and now I regret it. But thank you for speaking up. Maybe if I had heard somebody say that when I was a kid, I would have continued to pursue STEM." A lot of young people. I talk to a lot undergraduate classes and high school classes and a lot of them are afraid of what the climate is going to be like for them. And it's not just women. It's a lot of trans people, it's a lot of gender-nonconforming people. It's a lot of minorities who feel that they're going to be targeted. We don't have room to marginalize those voices. We need those voices. We need everybody to stand up for science, and I will continue to support those people in whatever way that I can.

**You also talked in that episode about how few women there were with STEM channels on YouTube. Have you seen any improvement in that area?**

Oh, yeah. I am proud that I no longer have one of the biggest STEM channels. I mean there are so many great creators out there now. PBS Digital Studios has done a fantastic job of elevating a lot of those voices. You even have people like Simone Giertz, she's Queen of Sh---y Robots. She's again somebody who didn't go into engineering but is creating this content online. And I think she's doing a great job of encouraging people who just have an interest in this to pursue it. But then you have people who have Ph.D.s, who have master's degrees, who are just killing it. Again, a lot of the PBS Digital Studios creators, like *Physics Girl* or *BrainCraft* with Vanessa Hill or *Gross Science*. A lot of these people have huge channels now and they're doing a great job.

**What are your hopes for *The Brain Scoop* going forward?**

That's a great question. I hope that it continues to do what it's doing, to promote natural history science, to celebrate taxonomists of the world. But I also want to use *The Brain Scoop* as a platform to serve other institutions. We have been at the Field Museum for four years now and we've done a pretty good job talking about our research and collections, but we don't have every strength of every museum. We don't have the most diverse staff and what I've seen from the last couple of years of talking with research organizations and museums is that they want the outreach that we're

achieving with *The Brain Scoop* but they either don't know where to start or they don't have buy-in from administrators or they don't have the budget or they don't have the talent or they don't have the time to invest in creating a huge digital following. And that's really unfortunate. So I've had a lot of conversations with people here at the Field Museum and we're now kind of moving into this other phase of our program where, when time and money permit, we want to partner with other museums and talk about the work that they're doing. I think I'm OK to announce this, like we're going to be in Denver for the Society for the Preservation of Natural History Collections. I was already going to be there to give a talk so we reached out and now we're partnering with their organization to do some videos about their research. And there are a couple of other institutions who we're working on this project with too.

So it's a really exciting next step for *The Brain Scoop* and it's a goal that aligns with a lot of these museums. The field of natural history wants people to understand that we are collaborative. We are a collective collection. We don't just have stuff from Illinois or Chicago in our museum. We have collections from every continent on the planet and you can say the same thing about most other large museums. So we want to make those connections, especially for our audience. And encourage people to get involved with their museums. So we can't get everybody from Denver to come to the Field Museum, but that doesn't mean that we shouldn't go to Denver and encourage people to join us there. So it's a pretty exciting next step for us.

**And for museums or science centers that don't have you, and that you may not be able to reach immediately, what advice do you have for them for engaging the public?**

No level of engagement is too small. I think a lot of organizations are very daunted by the undertaking. There are lots of museums that have set precedents: we need to do Facebook and Twitter and videos and Tumblr and Instagram and Snapchat and all of these other platforms. Just stick to one. Just do what you can. Because even if you reach 10 people, if those 10 people are in your backyard and you focus it to people in your backyard, they're going to look for ways to engage with you. So I would just encourage these other organizations whatever you can invest in digital communications and outreach, do it. Focus it on your local community. Don't feel like you have to get a huge international audience. Forty-five percent of *Brain Scoop* viewers are from outside of the United States, so we're not even reaching everybody here in Chicago. And that's OK, too. So if you've got a Twitter feed, great. Stick with it.

**Did you go to science museums as a child?**

We didn't have science museums where I'm from. We really didn't. I grew up in Rapid City, South Dakota, had about 50,000 people and it's the second

largest city in South Dakota. So my version of a science museum was when we finally got a Cabela's and we could go to the sporting store and look at the taxidermy. That's about as close as we had. We had the Journey Museum that came to us when I was in middle school, high school, but that was a lot of Native American appreciation and cultural artifacts from the area. And I think the science museum, we had to travel to a big city, and I'm privileged that occasionally we did get to travel to large cities. But it's not like we would spend a Saturday going to the science museum. But that's OK. To me science organizations was going in my backyard, and learning about the things in my backyard.

**I think I know the answer to this one, but is there a science museum that's particularly close to your heart?**

The museum in Montana will always be close to my heart. Always. I'll always be invested in that museum. Because of how big of a transformation that little collection had for my life. Like I wouldn't be here talking to you right now if it wasn't for that museum. But more so than the museum, it's the people in the museum. I have to really credit Dave Dyer, who was the collections manager, the curator there, when I was there. Because he was only part-time in that museum. He'd been there for 20 years or so and that's how little funded and appreciated that collection was at the time. They didn't give it the staff or the support it needed. So he could have done anything else with his time than take me on as an intern. He could have ended my internship after the semester was over but he didn't. He kept inviting me in, he encouraged me to come in, he gave me the room that I needed to explore this collection. And he empowered me to start blogging about it and to put this stuff online. I mean I really owe a lot to that individual, to Dave. Any small collections like that, university collections in particular, they've always been in kind of a rough spot and things are only going to get harder. I mean it's really difficult when you get new administrators, to justify the costs for collections and to justify the costs for staff. And so it's really going to be on museum collections to encourage their faculty and their students to continue using those collections. Otherwise we're going to lose them. University collections across the country are kind of my soft spot.

**Thank you so much for talking with me.**

Yeah, thanks for having me.

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