Social Media, Who Cares? A Dialogue Between a Millennial and a Curmudgeon

KENNETH A. FRANK
Michigan State University

KAITLIN T. TORPHY
Michigan State University

Authorship is equal; authors are listed alphabetically.

This is a dialogue between a curmudgeon and a millennial regarding the import of social media for education and for educational research. The dialogue emerged out of conversations the authors have had with policy makers, researchers, and practitioners over the last three years regarding the impact of social media on education (see teachersinsocialmedia.org). It was presented in the context of Kenneth Frank’s research group meeting January 4, 2018. The topics covered include a broad understanding about what social media are and how they relate to teaching and curriculum; understanding about social media as a data artifact; a discussion about how social media platforms shape the interactions of participants; the quality of resources available on social media; why teachers engage in using social media; the lack of research on social media; and how social media may give teachers more power relative to the status quo. We invite you to follow along as these topics emerge in the authentic flow of a conversation. There are opportunities for reader participation on Twitter.

“Heavier-than-air flying machines are impossible.” Lord Kelvin, president, Royal Society, 1895

Q. Social Media, Who Cares?

[Without social media] teachers are really going to suffer because we don’t have that many books . . . I’m not seeing that many books where someone’s like, “wow, look at these books with all these great lesson plans!” They are saying, look at my blog, look at Pinterest, look at this online resource.

Pre-service teacher as quoted in Torphy and Drake (2019, this yearbook).
BACKGROUND

The following is based on Kaitlin Torphy and Kenneth Frank’s experience with the Teachers in Social Media project (teachersinsocialmedia.org) project over the past three years. Kenneth Frank is the Michigan State Foundation Professor of Sociometrics within the College of Education. He has been studying social networks in general for more than 25 years, with special focus on social networks of teachers—whom teachers talk to and how that affects their classroom instruction.

Kaitlin Torphy received her PhD in education policy and the economics of education in 2014. Kaitlin is also a Teach for America alumna and a former Chicago Public Schools teacher.

As the lead researcher and developer of the Teachers in Social Media project at Michigan State University, Kaitlin has leveraged her experience in large-scale data analysis and survey, observation, and interviews of teachers to build a big and rich data set of teachers’ behaviors across physical and virtual spaces.

The Teachers in Social Media project emerged out of an NSF and WT Grant project (NSF REAL No. 1420532; WT Grant No. 182764, Ken Frank PI) studying elementary mathematics in which Kaitlin Torphy and Adrienne Hu incidentally observed in the field that early-career elementary teachers were extensively engaged in social media, Pinterest in particular. Over the past three years, the Teachers in Social Media project has built an interdisciplinary team that includes researchers from education and computer science. This team has classified images on social media used by teachers to understand how teachers seek and use information in the classroom.

As part of this project, Kaitlin and Ken have encountered a variety of opinions from educators, researchers, and policy makers about the prevalence of social media use among teachers and the importance of studying teachers’ use of social media. They have also heard from teachers themselves, in their formal work in classrooms and in informal settings, describing their use of Pinterest. Their recent research on the project has identified a fairly high prevalence of teachers’ use of social media, personal testimonials about the value of social media as a resource and as a source of professional community, and tracked the uses of social media into the classroom (Hu, Torphy, Jansen, & Lane, in press; Hu, Torphy, Opperman, Jansen, & Lo, 2018; Ishmael et al., 2018; Liu, Torphy, Hu, & Tang, 2017; Torphy & Drake, 2019, this yearbook; Torphy & Hu, in press; Torphy, Hu, Frank, Tang, & Mao, 2017; Torphy, Hu, Liu, & Chen, in press).
PROLOGUE

As we have engaged in the conversations over the past three years, we have rehearsed them in the form of a dialogue between ourselves, taking on the following roles:

Curmudgeon (played by Ken): “a crusty, ill-tempered, and usually old man” (Webster)

Millennial (played by Kaitlin): born in the mid-1980s to early 2000s; “contrary to popular beliefs, no we do not just live in our parents house forever. We just stay there until we’re financially independent, which is hard to be in this economy (thanks Baby Boomers).” (https://www.urbandictionary.com/define.php?term=Millennial)

We enacted the dialogue in the context of Ken’s research group meeting January 4, 2018. Members of the research group present were Kim Jansen, Chong Min Kim, Qinyun Lin, Yuqing Liu, and Dirk Zuschlag. Ken also participated as himself in this setting.

We thought we’d share the dialogue with you to make explicit some concerns you might have or have heard about teachers’ use of social media and about conducting research using social media (see Figure 1). The text has been lightly edited for grammar and continuity, and references and figures have been added. Follow along as Kaitlin and the Curmudgeon wrestle with essential questions on the minds of policy makers, researchers, and educators today. The topics we’ll cover include a broad understanding about what social media are and how they relate to teaching and curriculum; understanding about social media as a data artifact; a discussion about how social media platforms shape the interactions of participants; the quality of resources available on social media; why teachers engage in social media; the lack of research on social media; and how social media may give teachers more power relative to the status quo. We invite you to follow along as these topics emerge in the authentic flow of a conversation.

— Ken & Kaitlin
Figure 1. Teachers’ frequency of use on Pinterest

Note: Descriptive statistics produced from data collected from early career teachers as part of the Study on Elementary Mathematics.

THE DIALOGUE

Q. What Are Social Media?

Curmudgeon: So I don’t get all this interest about social media in education. Nobody is using it for anything other than hanging out with their friends, posting recipes, showing pictures of gardening projects. If teachers are not using social media in their classroom, their engagement with social media is of no consequence from an educational perspective, and I’m not interested.

Kaitlin: Okay, well, the interesting thing about social media, is that social media are a reflection of people’s social and individual lives. And that spans across personal and professional spaces. So, I would argue that, first of all, social media are exhibited within classrooms. So, putting that in the context of teaching, I would say that social media are a reflection of how teachers view themselves as teachers, how they view their practice, and how they view their pedagogical choices or aspirations.
Curmudgeon: Okay, but if it’s a reflection, you’re still saying it doesn’t have anything to do with what happens in the classroom, so why do I care?

Kaitlin: Well, it’s like asking why do we care about teachers’ responses to their teaching style or teaching practices within a survey. If you’re reflecting on who you are as a teacher, or what your aspirations are as a teacher, or your planning style as a teacher, then that is going to be translated into your classroom practices and your interactions with students. In the same way, we can use a different kind of data in social media to see how teachers are informally, or even in some cases formally, lesson planning and how teachers are reflecting on themselves and their teaching style within social media.

Curmudgeon: Alright, good. But you compared it to a survey, well . . . we know about surveys; we know how to do them . . . we’ve been doing them for a long time. I don’t see that social media add anything to our traditional forms of collecting data in educational research.

Kaitlin: The reason we do surveys is because we can’t be in individuals’ minds, and we also can’t always be in a teacher’s classroom; we need to have a way that we can see how teachers are thinking about their profession and their planning at scale, but at a scale that is sampled that we choose. The difference with social media is that we can do all of these things, and we can do it in real time, and we can do it at a greater scale than we ever could have conceived before with surveys. Now, the difference is that teachers are not specifically responding to questions like, “In the last three months I thought about planning in these particular ways.” But what we can do is we can ask, what is their activity over the last three months (see Figure 1), and what are they choosing to acquire and share within social media spaces regarding their professional practices? (see Figure 2.) Then we can extrapolate from some trends we are seeing over time.

Ken: I’m going to take your side on something, okay? The choices, their activity on the social media, is their own choice, and to your earlier point, their use of social media is of professional consequence. And so in some ways, data we get from social media are even better than survey or interview data, which is in some ways secondary to their teaching purpose since their participation in an interview is not intended to directly help them with their teaching.

Kaitlin: And social media data are also without respondent’s bias or observer’s bias.
Q. How do social media relate to traditional approaches to develop and adopt curriculum?

Research Group (Yuqing): You say that social media don’t directly affect the classroom, but I’m saying that they’re actually changing the whole procedure of the things that affect the classroom. Because classically, backstage, curriculum writers do trial and error and make sure that an instructional practice will somehow have an effect. And then in the final step teachers adopt it in the classroom. But for Pinterest, teachers actually, at the front stage, incorporate their trial and error of testing their selected Pinterest materials in the classroom and better incorporate them in their instructions under the curriculum. So social media actually could play an important role in the curriculum adoption process.

Ken: I think this is to the point that the searching and curation within social media like Pinterest is professional development in and of itself even if the resources do not enter into the classroom. And I really like the language of backstage and front stage, and there’s a very famous sociologist, Goffman (1959), who describes things that way.

Kaitlin: I think what’s also interesting is that when this Teachers in Social Media project started I would say more backstage, that is relative to other types of planning, but even in the time that we’ve been researching teachers’ use of social media, it’s now growing

Figure 2. The purposes of teachers’ professional use of social media
into more of a front-stage activity. That is, teachers report using social media regularly to plan for their lessons and support their students’ learning (e.g., Figure 3). So especially with Teachers Pay Teachers [teacherspayteachers.com, kind of like eBay for instructional resources] significantly growing in the last three to four years, now we are even seeing district curriculum supervisors who are bringing an entire binder of materials to a districtwide professional development, all from instructional materials and lessons they got off of Pinterest, so it’s permeating the boundaries of administration as well.

Figure 3. A teacher blogger’s description of the various purposes of social media
Q. Is there an innate selection bias collecting social media user data?

*Research Group (Qinyun)*: So you mentioned, comparing to surveys, social media are kind of a new data that have their certain advantages. Like in surveys, teachers or other respondents are required to answer the same questions. In social media, some teachers may have a stronger preference to use social media or use certain types of social media than others. So how can you address these individual differences when you collect the data in social media? Basically, different teachers have different data.

*Kaitlin*: You brought up two issues; the first is a selection bias possibility, and the second is once you have your sample, there are differences in the sample that you have. To speak to the first issue, we were really concerned initially about the selection bias problem. And when we examine the coverage rate of teachers within Pinterest, we found that over 80% of our teachers are using social media once a month and reporting using Pinterest once a month for professional purposes. Over 90% of our teachers are actually active on Pinterest altogether at any point. This is a sample from a National Science Foundation grant which has approximately 300 or so teachers that are spanning career stages.

The other thing we were concerned about was that Pinterest in the United States is predominantly female, predominantly White, and the age of Pinterest users when we started this work was approximately between 25 and 40 (see Table 1). Well, that just happened to line up perfectly with the sample of teachers we had within our study, which were primarily early-career teachers, although we had teachers in later stages of their career as well. And, in general, our sample was also relatively well aligned to the average age and demographic makeup of teachers within the United States. So we have this population of teachers in the United States that’s well aligned to the kinds of teacher-users within Pinterest. Then, we asked ourselves: Do we see any bias, or are there significant differences in the age of Pinterest users within our sample? Or the type of district that they come from within our sample? We tried to look at race, but because again, teachers are primarily white within our sample and within the United States, unsurprisingly, we didn’t see a lot of differences there. So that is answering the sampling or selection bias question, and the answer is basically we did not find evidence of selection bias.
Table 1. Descriptive Statistics on Pinterest Use in 2019

<table>
<thead>
<tr>
<th>Active Pinterest users in the world</th>
<th>Pinterest users in the United States</th>
<th>Female users</th>
<th>Median age</th>
<th>Pinterest use within social media</th>
<th>Users’ offline purchasing behavior impacted by Pinterest online activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>250 million</td>
<td>125 million</td>
<td>81%</td>
<td>40 years old</td>
<td>30% of all U.S. social media users</td>
<td>72%</td>
</tr>
</tbody>
</table>

Note: Descriptive statistics reflect those reported by OmniCore. https://www.omnicoreagency.com/pinterest-statistics/

The second issue is a question about how do you make predictions on data that is not collected for the purpose of making that prediction. And that is a problem that everybody using social media data has. You have to make sure that the claims or the causal inferences that you are making are specifically related to the group of people you are surveying or collecting data on, and are also pretty narrow. With surveys, everyone is answering the same question; with social media data, we don’t know what the counterfactual is, or what would happen if this person was not exposed to this data. Consider data a resource. We don’t know if this person in our sample was exposed to the exact same resources as every other person in our sample [as would be the case in an idealized experiment]. Now I can tell you that Pinterest knows that. I’m sure that Pinterest can track every single resource that a user is ever exposed to. We, as researchers, don’t have all of the proprietary, private information on Pinterest usage that the social media company has, so we don’t know what every resource is that somebody’s exposed to. That’s a really great question and something we could simulate. We could bring people in and expose them to the identical amount of resources and see what happens, but we do know what resources they choose to access and share. In essence, that’s still the best reflection we have of what teachers on Pinterest are valuing as worth knowing and sharing with other teachers.

Ken: If you relate the data we gathered in social media to traditional means of gathering data, one aspect of social media data is like a semistructured interview in the sense that the stimulus or prompts given by the interviewer are not always the same. This is similar to social media in that the stimulus of what someone is exposed to may vary from person to person based on the internal
Pinterest algorithm. In other aspects, the data available on social media are discrete information, that is, you click on a particular resource at a particular time. This is similar to what we get in survey, but not interview. So it is a little bit of a hybrid data form, but has strengths and weaknesses relative to other data forms (see Salganik, 2017, for additional information).

The social media data might be best examined in conjunction with other forms of data. So you have your big data–rich data distinction. And, social media data could be added to other projects that already use interview or survey data. Or, you could start with a social media study and then add interviews or surveys or observations of people interacting with social media to understand more fully the process.

**Kaitlin:** One of the things many researchers do with social media data is that they don’t learn about the people they are downloading data about. That can be a little bit unnerving, and so I really like the idea of connecting more than just one data source so that you understand at least some basic information about who you’re researching.

**Q. To what extent does the nature of the social media platform itself, and how it shapes the interaction of teachers on it, affect what you hope to get or learn about teachers’ backstage activities?**

**Research Group (Dirk):** Channeling Marshall McLuhan (1967), who said, “The medium is the message,” which platform are you talking about? The actual operation of the social media platform could affect what you are seeing and what the data is that you are collecting. Just as there are affordances and constraints of certain data, there are affordances of the actual production and collection of data through certain platforms, and there may be some bias . . . not selection bias from the sample, but from the fact that teachers within certain platforms are constrained in certain ways by the functionality of those platforms. What those platforms do, that will differ from other platforms.

**Kaitlin:** I agree with you. The platform definitely shapes the individuals’ interactions therein. I don’t think that’s “biased,” though, so I think that’s the wrong word. That’s where we have to go back to, what are the claims that you are making with big data? In the social media work that we have done, we are always careful to say this is what teachers’ behavior is within *Pinterest*. Often, *Pinterest* resources will link to other virtual spaces, so...
we will describe this as the behavior we are seeing teachers engage in, within Pinterest, and as they link to other virtual spaces, but I don’t think we’re quick to say this is everything that’s happening within social media. For example, we’re looking at open education resources, and that platform (see https://tech.ed.gov/open/) is developed by federal or state entities or private organizations that are working with local or state entities. The open education resources platform looks really different from, and functions differently than, Pinterest, which is not an educational platform. I do not think that our data is biased because we’re not making these broad claims to everything happening within social media, but I do think a lot about where are teachers engaging around education, and that’s a moving target. What is happening now among teachers within Pinterest may not happen even a year from now; it may be somewhere else and look differently.

The other thing that I should say is that people are moving from literacy within verbal discourse online to a visual literacy. Part of the work that we do is asking how do we make sense of images that people are sharing, because Instagram is growing faster . . . the activity is significantly more than what is happening in Twitter or even Facebook. According to Pew Research on social media use, use of Instagram in 2018 in the U.S. continued to grow, whereas Facebook use was flat (Pew Research Center, 2018). So we need to think about how we are tracking visual platforms and how we are making sense of visual images that are being shared.

Research Group (Dirk): I didn’t mean sampling bias, but it shapes their self-understanding or what they use it for in ways that, consciously or not, may influence what you can learn about how they think of themselves as teachers. How it affects their classroom practices. Not because of the visual images but also because of the group of people that are interacting. You have a mediating factor, which is the nature of the specific platform that they are operating on.

Kaitlin: I’m not disagreeing with you. Yes, the platform mediates and shapes what teachers are sharing and doing, and it also does for everyone else, not just teachers. Using survey, we asked teachers within our study about using social media. We gave them a list of eight or nine different platforms, including YouTube, Twitter, Teachers Pay Teachers, Khan Academy, Facebook, etc., and asked them if they are using it, how they are using it, and why they are using it. We find specific reasons that teachers are
using specific platforms. For example, teachers report that they more often use Twitter to stay on top of educational issues more than anything else. And on Pinterest, they report using it to acquire and share resources more than other reasons. So, yes we are finding it in teachers responses’ as well.

Ken: To relate back to Kaitlin’s earlier comment, understanding teachers’ use of social media is a moving target, so if Pinterest . . . if that’s what it is right now.

Who knows . . . it might be Instachat in the future.

Q. Are social media penetrating the classroom?

Curmudgeon: Are teachers just fooling around on their phones? Or is this actually something penetrating the classroom? If we started to observe teachers as they are interacting with social media, I predict that we are going to find that they are not seriously professional. That they are just fooling around on their phones, one minute chatting with a friend, the next, looking for a recipe, and then the next, looking for something from their class, in theory, but they are not really engaged in a professional mindset. Then the question is, how relevant really is this backstage behavior? How likely is it that it will enter the classroom?

Kaitlin: I think as educators and researchers, we need to redefine what it means to for a teacher to fully engage and what that looks like because the majority of individuals use their phones.

Research Group (Kim): The point is less about the technology they’re using to access these resources, whether it’s a phone or a laptop, but . . . . If you go to the Pinterest homepage—mine [Pinterest home page] is baking and recipes—but a teacher’s will likely be baking recipes and then some random teaching things coming up. So if you think about that in comparison to the traditional professional development, or “PD,” where they’re sitting there hopefully engaging completely with something presented to them, I think the question that I interpreted that is what is the difference in terms of professional learning, reflection, digging in with an idea when you’re engaging with educational ideas when you’re engaging with educational ideas in this more spattered way in terms of, soup recipe and craft-ivity that I can do my classroom versus the traditional way?

Ken: There’s an aspect here about how we cognitively process and when we make sense of things, and I’m thinking here of some work by Harrison White (2012) that says we really do our
sensemaking when we transition between settings or contexts; we
don’t necessarily do our deepest sensemaking while we’re sitting
in the professional development. So it’s an open question about
what’s more authentic? When I’m sitting in the PD session and
I’m immersed and focused at that point or when I’m looking at
my recipes, and does that look away somehow get me to better
focus on what I’ve been thinking about all day which is in my
peripheral view? I could raise this to anybody who’s ever doodled
during a presentation. It’s an open question about how much
that’s really distracting or inhibiting sensemaking.

Kaitlin: I think that there is a place for both of these things. I feel
like there’s a place for deep conversations with your district or
grade-level teams, but time is teachers’ greatest constraint. Given
that we can’t build in enough time to really get everything done
in professional development that we want to for teachers, I think
that this is a great opportunity for teachers to be able to more rou-
tinely or continuously reflect or seek out advice for better ways of
thinking from other people that they admire or aspire to be like,
within virtual spaces.

Q. What is the quality of resources teachers access on social media?

Curmudgeon: How do you control the quality of resources and advice from
teacher bloggers that influence or impact teachers?

Ken: I would say from an educational research standpoint, that’s
an open question. We don’t know the kinds of resources teachers
are going out and getting. We don’t know how they are sharing
them with other people in the classroom, with other people in
their schools. We shouldn’t react to that based on presuppositions
because we don’t know ourselves the social media being used, or
we don’t have the research. We should figure it out. It might be
we can leverage what’s already going on and nudge it in the direc-
tions we want.

Kaitlin: More broadly in all spheres, for us to say, “No, don’t look
[for quality instructional resources] at the people who you per-
ceived to be like you: the bloggers. Only trust your government
or these other established organizations.” In whatever discourse
or sphere you are talking about, that is just not a reality in today’s
world. Knowing that this is going to happen, I think we have to
be responsive.
Research Group (Chong Min): What are the returns on investment for a teacher to engage in social media (e.g., in terms of time spent looking for resources)?

Ken: What is interesting about considering the returns on investment of using social media is if we tend to compare it with the historical or conventional transaction costs, where we might’ve had a lot more of a certain type of professional development in a school going back 10 years, where faculty lounges were a different place. Now, go to a faculty lunch and you might see many teachers on their phones or on their computers, and so the historical low transaction cost of having that face-to-face exchange in a faculty lounge has gone up. It’s harder for me to go interrupt you who are on your phone and say, “We need to talk about this.” It’s a harder ask. So teachers themselves are engaged in a dynamic of transaction costs that might be difficult for them, but that’s the reality.

Kaitlin: Yes, and there are other reports by, for example, Opfer, Kaufman, and Thompson (2016), which found a majority of teachers are using virtual resources for their classroom practices. That is a large investment of time out of the traditional work day. I really like the framing of the return on investments though, and I think we can probably expand on that.

Ken: People in general, and teachers in particular, aren’t purely efficient and rational as economic models often portray, so you have the other side of it: their emotional state—the social norms, etc. But, they are more rational than often we give them credit for, and I think that if there are high returns for low investment in a certain space, a lot of teachers will find their way to that space.

Kaitlin: Well, and what is a return on investment? Thinking about the Keynesian approach to utility (Keynes, 2018), the return is the emotional state in some cases. The fact that teachers get to feel like they’re not isolated, they’re part of a community of other teachers. In the video trailer we made for AERA last year (https://www.youtube.com/watch?v=dd3iA3MzlN4), one of the teachers said, “You know, it’s just really nice to not feel like I’m alone. It’s inspiring to see what other teachers are doing.” So, I think that the emotional affect of participating in these virtual spaces is a large component, and that’s actually something I’ll write about in the other paper in this yearbook.
Q. How are social media competing with traditional and conventional forces in schools?

Curmudgeon: There you are, off doing the social media stuff, and now you’ve departed from the curriculum we [educators in the school] have all chosen or you’ve pulled yourself away from the teachers in the school. That’s going to create challenges for the school because the kids are going to get—even if you as a teacher have found quality resources—they’re going to be different than what they get from the other teachers. It’s hard for students to reconcile and make sense of all that.

Kaitlin: I do not necessarily think that curriculum will always be dominated by publishers, and they are beginning to recognize that. We have some colleagues in the Open Educational Resources movement, and when they signed the #GoOpen initiative, there was only one publishing company that was present at the table. Now, when they have their conferences as part of U.S.-based International Society of Technology in Education (ISTE), they find more publishing companies interested in talking with them about this movement. I think the publishing companies will probably need to start changing the way that they disseminate their information to both districts and teachers within them. Regarding the more varied resources and lessons and tasks that teachers are using within the district, I think, first of all, we do have evidence within our teacher sample that teachers will come together, and grade-level teams, and they will actually cocreate Pinterest boards or they will cocreate one Teachers Pay Teachers username and login. They might pool their money together to buy resources for their classrooms that then they’ll share amongst each other. We have evidence that teachers are collaborating as they seek out virtual resources online. I think there’s also evidence that teachers are individually seeking out resources online, and that will create more variance in the lessons and tasks that teachers are doing within their classroom. So, how do we as a community invested in education handle that? I think part of what would be helpful is if teachers had a more uniform approach to how they vet quality resources. In our project, which concerns teaching mathematics, we have attempted to create a rubric for how to examine and vet social media resources as they align to the trajectory of your mathematics within your classroom. This approach resonates with the 1983 Green piece about equity versus equality; we can’t say that everything is going to be equal within a school regarding the tasks students are presented, but we can say that we want to aspire
toward excellent resources within the school and give teachers a way to operationalize that through a rubric in the hopes that though we will have more varied resources, we will have less variance in the quality of the resources.

Research Group (Kim): These resources that are accessed through social media are filtered through district, school and team expectations. . . . Resources are supplements to curriculum, not a substitute for curriculum. So, the purpose for social media is almost as another mentor teacher or another school-based team. Where traditionally, I may have bothered my mentor teacher like, “Dude, my kids are not getting inferencing. I’m going to add another day to the curriculum because they’re not getting it. What have you done in the past?” Now, I might do that, but I might supplement even my mentor teacher’s information with something I’m finding online. So I think to your point, I don’t think it is going to become a substitute, it’s another mentor teacher almost to a lot of our novice teachers.

Ken: To pick up on Yong Zhao’s metaphor (Zhao & Frank, 2003), the resources accessed in social media are entering an ecosystem. They cannot bypass that ecosystem and directly present themselves in the classroom. But they are ultimately altering that ecosystem because they are going to be a part of it. So though they are not completely shaped by that ecosystem, there is a little bit of back and forth, that’s part of the living ecosystem of the school.

Research Group (Kim): And Kaitlin, to your point, that publishers won’t dominate the space as before, the lift for a teacher to create a curriculum is too much. I don’t think that there will be a time when teachers are just going to be making it up using their online resources. I think there will be some framework for mixing curricular resources, and this [resources on social media] can be helpful, but the framework needs to still exist. I cannot imagine the lift of go on Teachers Pay Teachers and design what second grade reading looks like.

Kaitlin: Most districts have a curriculum, but a lot of districts don’t have a curriculum. I taught in a school that chose to not have curricula, and I had to make up my curriculum as a first-year teacher. Even in the districts that do have published textbook curricula, what we are going to find is more movement toward disseminating the curriculum in different ways and probably in more virtual ways and in ways that can be modular. And tailored.
**Research Group (Kim):** That makes sense.

**Kaitlin:** In the video trailer I mentioned, a teacher we interviewed said, “I go to Pinterest to find a task to meet a particular demand. But, on Twitter, I think more broadly to think about how do I want my classroom to look like, or how do I want my teaching to look like?” So, she will broadly think about, for example, flexible seating—which could completely change her classroom dynamics—or something like that.

**Research Group (Kim):** I think you are also getting at the abstract versus the concrete. An aspirational abstract, like this is the way I want my classroom to look, versus this is the concrete, this is the task at hand.

**Ken:** That’s where you would go to Pinterest.

**Kaitlin:** I think we want to be careful to say that we do not believe that this is going to be taking away publishing textbooks.

**Ken:** So, an overarching comment is that social media resources are going to enter the classroom because teachers are a key component. To return to Zhao and my metaphor of the school as living ecosystem, we call them [teachers] keystone species, determining the classroom ecology, and teachers by their demographic, by the training, by their profession, just by being professionals are key; many of them engaging in social media—and so it’s going to enter in. The challenge is to figure out how teachers’ sensemaking goes on, and how that resource enters into the ecosystem of the school in the classroom. And, how that varies by time and place. So think back some time, and there were teachers who were doing it all on their own, and they were making all the decisions. Likewise, there might be places like that now or in the future where one or a small group of teachers—I think those open-ed schools are actually creating stand-alone curriculum as a small group of teachers.

**Research Group (Kim):** But the difference would be that those open-ed schools tend to be organized by someone at the district level who is taking some of that lift, right?

**Ken:** No, in some cases, but in other cases it was a small group of teachers. The district said, “We’re not purchasing textbooks that gives you X amount of money, high school teachers what would you like to do with that money?”
“We’d like to use it to meet and generate our own curriculum.” And that’s what they did. So, there will be places and times where Open Ed Resources is much more an independent, single teacher or small group. There will be others where it is vetted extensively by the district, or even the state, and they will have certain requirements, and teachers will be on the receiving end or there will be constraints. That’s for us to figure out, that heterogeneity. The heterogeneity that individual teachers bring to the school in terms of the resources they adopt, their way of thinking, the way they’ve curated resources, all of this can contribute to innovation. If you don’t have any heterogeneity, it’s harder to have innovation. So some of that is good. Even if it’s not coordinated. That is a very Schumpeter (1934) kind of idea [that innovation comes from entrepreneurship and interactions among people with diverse knowledge], and you have to figure out how to harness that innovation and make it work for the school.

Kaitlin: And to build off of that, I think part of the movement that we are seeing with teachers engaging in social media is because they have been over the past 20 or more years, somewhat constrained in how much innovation or autonomy they are able to have since No Child Left Behind and the evaluation era. I think networking within social media is giving teachers an opportunity to get back to being creative and innovative, which is part of the reason that people want to be teachers in the first place.

Ken: And, we’ve talked about there being a policy window now, where the feds backed off the use of standardized tests, back in the Obama administration, and nothing is really stepped in to fill its place. Betsy DeVos is a very locally oriented kind of person. So with states having more autonomy and districts having more autonomy, and the states not sure what to do with it—many of them. The districts have more autonomy, so with that, that comes to the teacher.

Q. Why haven’t we heard of this before?

Curmudgeon: If social media were so prevalent, if it were so important, why haven’t we heard of it before? Why hasn’t it been in all the journals? I don’t think it really exists.
Kaitlin: That is a great question, and I think part of the reason is that our field is somewhat dominated by very successful men, and men are not the user base of Pinterest. So, I think this phenomenon of K–12 teachers’ using social media has been under the radar because the leaders in our field have been more focused on spaces they are more comfortable with and they have some type of entry point in, and Pinterest has not been one of them. Twitter is an example of something that has been studied, as has Facebook. And the other thing is that social media make up a super, fast-paced space. So, we are always somewhat behind the changes happening within social media and where users are going for their information.

Ken: Anything that is path breaking by definition has no precedent. That could be part of what is going on here.

Kaitlin: And I think it is also hard, it’s a challenge to build theory around this. Because there are not natural established theories on individuals’ engagement within social media in education.

Q. This gives teachers too much control.

Curmudgeon: I’m worried this is going to give teachers too much control. I like textbooks; they were vetted and developed over a long period. Publishers work with high-level policy makers. Now, the teachers are just out there, doing their own thing, and I don’t think that’s going to lead to good resources and good education.

Kaitlin: Well, you wouldn’t be alone thinking that. And a large part of what we’ve been doing since the standards movement and beyond has been attempting to alleviate some of the responsibility and autonomy of teachers so that we can make certain that students are making adequate yearly progress and achieving success. We have a large base of literature on questions of teacher quality, problems with teacher quality, and your question also aligns with that because if we don’t have quality teachers, how are we going to know that teachers are accessing quality resources? So I think that this work within the social media space aligns well with other education policy questions pertaining to both student achievement outcomes and also teacher quality questions and instructional resource and planning work that is being done.
Ultimately, it’s not within our power to keep teachers from accessing resources online and making their own determinations of what is worth knowing and what is worth learning for students. That’s always been the case, it has always been the case. Now, teachers have more ability to connect with other teachers and use teacher role models within teacher blogs to support their planning and practices. I believe the best way to address your concern is to partner with social media companies and collaborate to promote and put forth the best resources and the best teacherpreneurs within those platforms.

Next, we present some takeaways from the dialogue. We want to hear from you. Tweet your thoughts at the #’s in Table 2.

**Table 2. Key Points to Tweet About**

<table>
<thead>
<tr>
<th>Curmudgeon</th>
<th>Millennial</th>
<th>You</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nobody uses social media for professional purposes.</td>
<td>A majority of teachers are using social media for educational purposes.</td>
<td>#Pinterestuse</td>
</tr>
<tr>
<td>We don’t know what to do with this new data.</td>
<td>We can look in real time and over time to make inferences and extrapolate trends.</td>
<td>#newdata</td>
</tr>
<tr>
<td>Teachers are not really engaged in a professional mindset.</td>
<td>All teachers sampled in the Teachers in Social Media project had educational resources on their Pinterest boards.</td>
<td>#edmindset</td>
</tr>
<tr>
<td>We don’t know the quality of the resources online.</td>
<td>Knowing that this is occurring, we have to be responsive.</td>
<td>#resourcequality</td>
</tr>
<tr>
<td>Social media divides teachers within a school.</td>
<td>We can’t say that everything is going to be equal within a school, but we can say that we want to aspire toward excellent resources.</td>
<td>#resourceequity</td>
</tr>
<tr>
<td>If it’s so important, why haven’t I heard of it?</td>
<td>Social media is a dynamic space, so we are always behind what is happening.</td>
<td>#Pinterestwho?</td>
</tr>
<tr>
<td>This will give teachers too much control.</td>
<td>Ultimately, it’s not within our power to keep teachers from accessing resources online and making their own determinations of what is worth knowing and what is worth learning for students.</td>
<td>#edcontrol</td>
</tr>
</tbody>
</table>
Q. Kaitlin (switching roles): So how does it feel to be a curmudgeon within the 21st century? That is my question to you.

Ken: You know, a good thing about my job is that when I have curmudgeonly tendencies, you all pull me out of it. So I think there’s an important balance here, you know the curmudgeon sees things conventionally, but maybe with that also sees the strong underlying forces that have always been there and that might still be there. And so that kind of caution and skepticism is valuable, right? But sometimes the curmudgeon doesn’t see what is going on, and I was thinking that there’s a picture in the newspaper about one of the Congresspersons interviewing Zuckerberg holding up the phone, saying, “Like what’s this? How do you make money on Facebook?” That was the question. That is striking to me because, though you can make laws without understanding that—because you need to understand the underlying forces, the competitive forces in our world—I get that. On the other hand, if there’s a large group of people out there behaving the same way, when you make laws, you need to be aware of their behavior and what motivates them. So, as the curmudgeon, it is interesting for me to engage in this conversation and learn new things.

Kaitlin: Yes, and I think a cool thing about this work moving forward is building off the educational research approaches that have already been well established. Like combining social network analysis with this, combining administrative data sets with this kind of data. So that we can provide better understandings about what is happening with education policy, what is happening in schools, and have a more holistic approach to understanding student achievement outcomes.

Ken: See the social media as part of a broader research enterprise and also toward an ecological system, part of a broader ecosystem in the school.
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KENNETH A. FRANK received his PhD in measurement, evaluation, and statistical analysis from the School of Education at the University of Chicago in 1993. He is MSU Foundation Professor of Sociometrics, professor in Counseling, Educational Psychology and Special Education; and adjunct (by courtesy) in Fisheries and Wildlife and Sociology at Michigan State University. His substantive interests include the study of schools as organizations, social structures of students and teachers and school decision making, and social capital. His substantive areas are linked to several methodological interests: social network analysis, sensitivity analysis and causal inference (http://konfound-it.com), and multilevel models. His recent publications include agent-based models of the social dynamics of the implementation of innovations in organizations, and the implications of social networks for educational opportunity. Recent publications include: *Frank, K. A., & *Xu, R. (2018) Implementation of evidence based practice in human service organizations: Implications from agent-based models. Journal of Policy Analysis and Management, 37(4), 4867–4895. *Coequal first authors; and Frank K. A., Lo, Y., Torphy, K., & Kim, J. (2018). Social networks and educational opportunity. In B. Schneider (Ed.), Handbook of the sociology of education in the 21st century (pp. 297–316). Handbooks of Sociology and Social Research. Cham, Switzerland: Springer.

KAITLIN T. TORPHY is the lead researcher and founder of the Teachers in Social Media project at Michigan State University. This project considers the intersection of cloud to class, the nature of resources within virtual resource pools, and implications for equity as educational spaces grow increasingly connected. Dr. Torphy conceptualizes the emergence of a teacherpreneurial guild in which teachers turn to one another for instructional content and resources. She has expertise in teachers’ engagement across virtual platforms, teachers’ physical and virtual social networks, and education policy reform. Dr. Torphy was a co-PI and presenter for an American Education Research Association conference convened in October 2018 at Michigan State University on social media and education. She has published work on charter school impacts, curricular reform, and teachers’ social networks, and has presented work regarding teachers’ engagement within social media at the national and international levels. Her other work examines diffusion of sustainable practices across social networks within The Nature Conservancy. Dr. Torphy earned a PhD in education policy and a specialization in the economics of education from Michigan State University in 2014 and is a Teach for America alumna and former Chicago Public Schools teacher.