Welcome to Cloud2Class: Social Media in Education

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This chapter welcomes the reader to the study of social media in education. It begins with a description of the background, ranging from general use of social media in today’s society to the importance of social media in education. The study of social media in education will inevitably draw on interdisciplinary concepts and networks of relationships among ideas and people. Furthermore, social media can help researchers and educators cross current boundaries, such as the organizational boundary of the school, and the domains of teachers and leaders. Social media also reveals boundaries that have been reinforced or are emergent with social
media, such as intergenerational and cross-cultural boundaries, and standard boundaries of chronology. The contributors themselves come from interdisciplinary backgrounds (all focused on education, but from computer science, technology, sociology, policy, psychology, etc.), and they consider their own agency in shaping the field of study of social media in education. This includes generating theory, raising ethical issues, and providing practical advice. After describing the organization of the yearbook, most importantly, this introduction directs readers to opportunities to engage the field (#cloud2class).

Welcome, and thank you for engaging this yearbook on the study of social media in education. We’re just getting started, so there is plenty to learn and many ways to contribute. Some of you might want to pull up a chair, get comfy, and hear a bit more about what we’re up to, as well as read some of the chapters in this yearbook to get more in-depth background. You will find resources here to explore or even curate on your own. No matter how you become engaged, we hope that you will contribute by tweeting (#cloud2class), conducting new research, joining the conversation, or just reflecting on how social media is currently used in education.

BACKGROUND: SOCIAL MEDIA IN SOCIETY AND EDUCATION

In today’s fast-changing world, people are increasingly turning to social media for real-time information and connection in their everyday lives. Approximately 2 billion people, or one third of the world’s population, are using social networks to find other people and resources across geographical, cultural, and economic borders. These trends are expected to grow as mobile device use and mobile social networks gain even more traction. This growing social media space will necessitate that educators, parents, and communities develop and hone new skills in identifying, discerning, and harnessing quality opportunities inhering in the technology. In essence, we need to be more explicit about the “network literacy” capacities that are developed in the youth and parents of today who interact in these new communities. At the same time, we need to be mindful of the network literacy of teachers, leaders, and policy makers who are continually advancing their own knowledge and that of the profession both inside and outside schools in this new social media space.

Technology will not be the sole driver of learning in the future; rather, it will be a valuable resource and part of a broad instructional repertoire that has the potential to bring in a wide variety of voices and perspectives. Therefore, to ignore its promise is to miss a significant opportunity. As each of us has explored the relationship between technology, networks, and education in our own way, it strikes us that the intersections among all three have been vastly underexplored and offer a potential high leverage point for practice, policy, and research.
As we move further into technology-enabled futures, our ability to network and leverage knowledge in collective systems will become even more important. The “knowledge economy” is driven by collaboration, social skills, network literacy, and the ability to harness interdependent social systems, which hold possible economic/social/political/cultural value. Better understanding of the newly evolving ideas highlighted in this yearbook provides us with the opportunity to create and grow our individual and collective ability to learn, lead, and examine processes of large-scale policy implementation. Approaching the work of educational politics and policy making as a system of relations recognizes that while the individual is important, it is the system of interactions among individuals that is equally informative and both supports and constrains access to resources.

The efforts highlighted in this yearbook are exemplars of the ongoing, innovative, disruptive power of social media and how the exclusivity of traditional media is quickly becoming outmoded, outdated, and outstripped by the rise of a new breed of communication. The mass media creation and distribution of meaning, perceptions, and beliefs are being challenged and refuted by the “we” enabled with devices, multiple points of contact, and a growing number of channels in which to move resources.

REVIEW OF THE WORK: BOUNDARY CROSSINGS

As we have embarked on the study of social media in education, we have been struck by how social media crosses traditional boundaries. Traditionally, teachers used resources that they created themselves or obtained from another teacher in their school or district or that were mass-produced by a textbook publisher. Now, teachers can access resources from across the world (Torphy, Hu, Liu, & Chen, in press). As teachers access these resources, they find new bases of professional community (Hashim & Carpenter, 2019, this yearbook) and upend traditional structures of power and knowledge flow (Torphy & Drake, 2019, this yearbook). As they curate these resources, teachers expand their conceptualization of instruction (Hu, Torphy, & Liu, 2018). Traditionally, there was a boundary between policy discussions and everyday practice in classrooms; however, as discussions permeate public venues such as Twitter (Daly, Supovitz, & Del Fresno, 2019, this yearbook; Rehm, Cornelissen, Daly, & Supovitz, in press; Rehm & Notten, 2016), transparent dialogue regarding policy debates encompasses stakeholder parties ranging from high-level policy makers to classroom teachers and interested citizens.

The potential of social media to facilitate connections across geographic spaces and historically entrenched hierarchies of knowledge and power (Torphy & Drake, 2019, this yearbook) also makes us aware of new
boundaries that exist that have not been crossed. As teachers access virtual resource pools, they could be exposed to diverse cultural representations. However, this exposure may be siloed across resources originating from other teachers like oneself unless educators intentionally create, label, and seek out diverse cultural representations (Hu, Torphy, & Opperman, 2019, this yearbook). Similarly, social media affords intergenerational boundaries to be crossed, with a majority of adults engaging in social media as of 2016 (Statista, 2016). However, teachers do not interact in social media spaces in the same ways that adolescent learners do (Rutledge, Dennen, & Bagdy, 2019, this yearbook).

As social media afford the potential to cross boundaries, the academic world may be pushed to engage in a new medium and meet educators and learners where they are most comfortable. Traditionally, leadership was conceptualized as the behaviors or attributes of the leader that matter for a variety of outcomes. But leadership can now be conceptualized in terms of network ties that may affect flows of knowledge and diffusion of resources (Daly, Liou, Del Fresno, Rehm, & Bjorklund, 2019, this yearbook). There is already evidence that studies of social media cross boundaries between education, communication, information sciences, computer science, sociology, and so on (Rehm, Manca, Brandon, & Greenhow, 2019, this yearbook).

While the interdisciplinary nature of social media research affords great opportunities for synergy, it is also an indicator that there are currently few established homes for this work in the academy. Therefore, as this interdisciplinary and transdisciplinary work occurs, we must learn to communicate better with one another and, in doing so, value different questions, methods, and perspectives. Although these skills are generally valuable, they are even more so in the research endeavor because we often speak in different dialects, hold unique norms, and privilege different approaches. All of this is key to deep collaboration and innovation that will produce convergent knowledge.

Within this yearbook, we also cross the boundary of time. Greenhow, Cho, Dennen, and Fishman (2019, this yearbook) lay out the territory covered by previous reviews of social media and educational research to generate research directions for the terrain ahead, and Karimi, Derr, Torphy, Frank, and Tang (2019, this yearbook) provide insight into one such conversation concerning scaling research within education using machine learning approaches. Brandon (2019, this yearbook) can help others contemplate events where real-world interactions occur. All of this work is done in the spirit of pushing the conversation forward.
THE CONTRIBUTORS

Some of the work in this yearbook emerges from previous studies of social networks (represented by Jeffrey Carpenter, Alan Daly, Kenneth Frank, Martin Rehm, and Jonathan Supovitz) or of education and social media (Christine Greenhow). But there are important new contributors to the field represented in this yearbook (Diana Brandon, Ayesha Hashim, Sihua Hu, Hamid Karimi, Dan Krutka, John Lane, and Kaitlin Torphy), as well as midcareer scholars (Stacey Rutledge). These scholars have brought important new perspectives, showing us where we should have seen further (Hashim & Carpenter, 2019, this yearbook; Torphy & Drake, 2019, this yearbook), or challenged more (Hu et al., 2019, this yearbook; Krutka et al., 2019, this yearbook), or helped us to get organized (Brandon, 2019, this yearbook; Lane, Boggs, Chen, & Torphy, 2019, this yearbook). Undoubtedly the junior scholars leading these articles are the future of the field.

Although the emerging scholars are the future of the field, the linkages across generations of scholars are critical to maintaining and improving scientific rigor. As we analyze social networks and social media, we must attend to basic scientific principles of good data, good measurement, and ruling out alternative explanations (Frank & Torphy, 2019, this yearbook). We must also engage in design research, seeking to improve both our educational technology designs and our knowledge base over time (Greenhow et al., 2019, this yearbook). On the other hand, traditional techniques for analysis may not be up to the task of incorporating new types of data from social media, at scale, and that represent previously unmeasured dynamics. This might be especially true as we move into BIG DATA (see Karimi et al., 2019, this yearbook; or Salganik, 2017).

IMPLICATIONS: HOW WE CAN HELP

We intend our efforts to shape this new, emerging field. As researchers, we can observe, in real time, when a policy debate is skewed by virtual actors (Daly, Supovitz, & Del Fresno, 2019, this yearbook) and where leaders go for resources (Daly, Liou, et al., 2019, this yearbook). We can observe how teachers conceptualize instruction and curate resources (Torphy et al., in press; Torphy & Drake, 2019, this yearbook). We can help teachers and teacher educators think about how to reduce the search and verification transaction costs for teachers to find valuable resources (Lane et al., 2019, this yearbook). We can raise ethical issues and the potential negative sides of using social media to recreate power differentials and polarize or stratify (Krutka et al., 2019, this yearbook). To realize the potential of social media for educational purposes, we should be skeptical, asking, does social media really change instruction and learning (Frank & Torphy, 2019, this yearbook)?
ORGANIZATION

The first two articles (Daly, Supovitz, & Del Fresno, 2019, this yearbook; Rehm et al., 2019, this yearbook) provide a broad view of the field. We then move to the technical core of education including schools, leaders, teachers and students (Daly, Liou, et al., 2019, this yearbook; Hashim & Carpenter, 2019, this yearbook; Rutledge et al., 2019, this yearbook; Torphy & Drake, 2019, this yearbook). We then transition to the “stuff” that resides in virtual educational resource pools and flows through social media (Lane et al., 2019, this yearbook; Hu et al., this yearbook). From there, we consider challenges to the use and study of social media in education from critical perspectives (Frank & Torphy, 2019, this yearbook; Krutka et al., 2019, this yearbook), and then to a map for the future given the territory that has already been covered (Brandon, 2019, this yearbook; Karimi et al., 2019, this yearbook). You might consider reading the articles in each section as a set; they intentionally relate to one another and cross-reference each other as we attempted to look across levels of the educational endeavor. Collectively, the articles provide a basis in new empirical findings, review extant research, and provide new ways of conceptualizing the space. A Wordle of the chapters appears in Figure 1, where we observed the presence of social media, the core of schooling (e.g., teachers, students, classroom), and the virtual resource pools (e.g., networks, online, information, access).

![Wordle of chapters in this yearbook](image-url)
YOUR TURN

Undoubtedly, we have missed some important contributors to what we are hoping will grow into a large and supportive community. We urgently need to better represent diversity of race, ethnicity, and culture in the work in this area. We are also aware of journalists, district administrators, and federal or state policy makers who should find the contents of this volume of interest and who might contribute their own knowledge and experiences to the study of social media in education. We also hope that grant agencies are prepared to fund work in this emerging field as the growth in this area moves the studies well out of the boutique realm. We would like to make a space for the field to coalesce, collaborate, and grow in new and unique ways (#cloud2class).

Our hope is that you will contribute. In one major way, you already have contributed by reading and sharing this yearbook with others. There are lots of ways to become a member of this growing community, including sharing your thoughts, raising questions, commenting, conducting studies, or—and maybe most importantly for the work to grow—tweeting (#cloud2class, etc.). Introducing this work into your classroom or educational context, or even generating new ideas helps all of us to be better together. It is an open space, and open spaces call to be explored, contested, and settled, and we hope you will join this exciting group of pioneers. We hope to see you around and to check in from time to time.
REFERENCES


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ALAN J. DALY is a professor in the Department of Education Studies at the University of California San Diego and specializes in social network analysis and educational change processes. He has several books on the topic, including one published by Harvard Press entitled Social Network Theory and Educational Change. Professor Daly is also a Fulbright Global Scholar, having spent time in New Zealand and South Africa.

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
CHRISTINE GREENHOW is an associate professor in educational psychology and educational technology, Michigan State University. She studies various forms of learning with social media, the design of social-mediated environments for learning, and changes in scholarship practices with new media. (More information at http://www.cgreenhow.org and @chrisgreenhow on Twitter.)

SIHUA HU is a postdoctoral fellow on the COHERE project at Northwestern University. Her research examines various dimensions of teaching quality, and how teaching quality is related to mathematics teachers’ social networks within physical and virtual spaces. Dr. Hu was a co-PI for an American Education Research Association conference convened in October 2018 at Michigan State University on social media and education. She holds a PhD in mathematics education and a MS in statistics from Michigan State University. Dr. Hu’s recent work with colleagues titled “What Do Teachers Share Within Socialized Knowledge Communities: A Case of Pinterest” was published by the Journal of Professional Capital and Community. In this article, Hu and colleagues characterized the types and the cognitive demand of the mathematics curriculum materials curated by a sample of early-career teachers within Pinterest. Using a new methodology, epistemic network analysis, Hu and colleagues also explored how teachers made connections among these different resources.

MARTIN REHM attained his PhD at Maastricht University, the Netherlands. He is currently the transfer manager at the Institute for Educational Consulting at the University of Education in Weingarten, Germany. His research interests include informal learning in social media, social opportunity spaces, and applying mixed methods to assess the educational value of social media. His recent work includes a contribution to the American Journal of Education entitled “Drinking From the Firehose—The Structural and Cognitive Dimensions of Sharing Information on Twitter?”
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.