



Ph.D. Dissertation Defense

Candidate:	Jacob Erickson
Degree:	Doctor of Philosophy
School/Department.:	Interdisciplinary / Data Science
Date:	Tuesday, July 23, 2024
Time:	10:00 – 11:30 am
Location:	Online (https://stevens.zoom.us/j/95282194240)
Title:	Can Social Platforms Foster Constructive Political Dialogue? Three Essays on Digital Infrastructures and Online Spaces.
Chairperson:	Dr. Bei Yan, Information Systems, School of Business Dr. Wendy Hui Wang, Computer Science, School of Engineering & Science
Committee Members:	Dr. Feng Mai, Information Systems, School of Business Dr. Lindsey Cormack, Political Science, School of Humanities, Arts, & Social Sciences Dr. Jeffrey Nickerson, Information Systems, School of Business

Abstract

Political communication is increasingly shifting to digital social spaces. While these spaces offer opportunities for deliberative discourse, they also pose significant risks of division and fragmentation. Indeed, the rise of digital media has coincided with historically high political polarization, low institutional trust, a loneliness epidemic, and concerns about democratic erosion. The digital realm also presents challenges such as misinformation, hate speech, echo chambers, and filter bubbles. Addressing these issues and providing spaces for sensitive political discussions is paramount.

This dissertation analyzes digital communication across social media platforms (e.g., design features and policies) that underpin them. The first study uses semantic network analysis to assess the bridgeability of partisan discussions on Reddit. The study found that despite differences in political ideologies, there are significant similarities in the discussions of events, suggesting the potential of social media to unite rather than solely divide political communication. The second study employs a quasi-experimental design to explore how an affective design feature (Reactions) influences the emotional expressions of elected politicians on Facebook. It revealed that political figures increased the negativity in their posts after the feature's launch, likely because the feature promoted public engagement with emotional expressions. The third study evaluates the impact of content moderation on alternative social media platforms. It showed that a hate-speech moderation policy on an alt-tech platform, Bitchute, inspired a "backlash" that increased platform-wide hate speech. These results imply that top-down content moderation may not work for alternative platforms.

This work contributes to the literature by examining digital dialogues and the online infrastructures that shape them. It combines text mining, social network analysis, and econometric techniques such as difference-in-differences to study large-scale behavioral trace data from social media platforms. The studies employ novel methods, theoretical frameworks, and settings. They offer novel insights into how technological mediation can shape political expression and discourse, with implications for future research, policy-making, and the design of social platforms.