

Daniel Muise

PROFILE PhD candidate in communication / computational social science. I focus on the aggregation of micro-level behaviors underlying new media's most-discussed societal threats: political polarization and the modern news ecosystem. I am experienced in audience measurement, laboratory and field experiments, network analysis, international fieldwork, surveys, and screen-recording.

EDUCATION

Stanford University	
<i>Ph.D.</i> , Communication	2022
<i>M.A.</i> , Communication	2019
University of Massachusetts	
<i>B.A.</i> , Political Science; <i>B.A.</i> , Economics; <i>Summa Cum Laude</i>	2016

PUBLICATIONS, MANUSCRIPTS

Muise, Hosseinmardi, Howland, Mobius, Rothschild, & Watts, 2021. The Exception, not the Rule: Partisan Segregation in the Audiences for Television News and Online News. *Manuscript under review*.

Muise, 2021. The Nature of Political Information Exposure on Smartphones & Social Media: Description and Experimental Investigation of Moment-by-Moment Behavior. *Ongoing Dissertation*.

Muise & Reeves, 2021. Timescales in Modern Political Communication Research and the Utility of Digital Trace Data. *Working paper*.

Muise, Lu, Pan & Reeves, 2021. Selectively Localized: Temporal and Visual Structure of Smartphone Screen Activity across Media Environments. *Manuscript under review*.

Reeves et al., 2019. Screenomics: A Framework to Capture and Analyze Personal Life Experiences and the Ways that Technology Shapes Them. *Human-Computer Interaction*, 2019. Vol 1, No. 52. Reported in [New York Times](#).

Muise & Pan, 2019. Online Experiments for Communication Research in Asia. *Asian Journal of Communication*, 2019. V 1:18.

Kingsley & Muise, 2017. More Talk, Less Need for Monitoring: Communication and Deterrence in a Public Goods Game. *J. of Experimental Political Science*, 2017. V 1:19.

Muise, Nissim & Kellaris, 2016. Differential Privacy in Descriptive Statistics: a Guidebook for Social Scientists. Technical Report.

PRESENTATIONS

Invited talk, David Rand's Human Cooperation Lab, MIT	2022
<i>Partisan Segregation in the Audiences for Television News and Online News</i>	
Computation + Journalism (Northeastern University)	2021
<i>Comparing Audience Segregation in Online and Televised News Viewership</i>	
Polarization and Social Change Lab, Stanford	2020
<i>Audience Partitioning in Television News & Online News: Evidence from Three Years of Nielsen Panel Data</i>	
International Conference on Computational Social Science	2020
<i>Growing Separation in the Television News Audience: Evidence from Three Years of Nielsen Panel Data</i>	
International Communication Association (Prague, Czechia)	2018
<i>Micro-Level Natural Interaction with Information Systems: An International Screenshot Ethnography</i>	
Computation + Journalism (Northwestern University)	2018
<i>Content over Format: Modern Device Usage and a Realignment of the News Definition</i>	

ADDITIONAL RESEARCH EXPERIENCE	PhD Intern: Central Integrity – Elections Preparedness		2021
	<i>Facebook</i>		
	Multi-method data science for tackling civic impact in nations		
	Founder & CEO		2021
	<i>Krystl</i>		
	Founder of media analysis start-up, funded by the Brown Institute for Media Innovation		
	Coordinated/Inauthentic Behavior measurement		2021
	<i>Facebook, Social Science One</i>		
	Programmed stats pipeline for analysing Coordinated Inauthentic Behavior by foreign entities; working under Prof Jennifer Pan		
	Co-Designer/Manager: National Long-Term Panel Data Collection		2020-pres
<i>Stanford Screenomics Lab</i>			
Created system for recruitment and <u>smartphone logging</u> for COVID-19 tracking			
Recruited and managed a five-person team to collect 78TB of screenomics data			
Using <u>GCloud</u> compute/storage, <u>Firebase</u> , <u>Qualtrics</u> , image proc, HTML, R			
PhD Intern: Quantitative UX Research		2020	
<i>Facebook: Instagram Shopping</i>			
Designed & distributed UX survey to millions of users internationally, provided key insights to engineering teams for machine learning initiatives			
Using <u>Qualtrics</u> , R, SQL, database tools			
PhD Intern: Computational Media Economics		2019-pres	
<i>Microsoft Research (MSR), New York City</i>			
Analyzed <u>billions</u> of hours of TV & browser <u>panel data</u> , measuring news echo chambers			
Using <u>streaming computation</u> , <u>network analysis</u> , video visualization, R, Ubuntu			
Lead author on large-group collaboration			
Co-Designer/Manager: National Data Collection & Field Experiment		2017-2019	
<i>Stanford Screenomics Lab</i>			
Created system for recruitment and <u>smartphone tracking</u> for media psychology			
Advanced randomization to measure <u>causal</u> effect of social media on news consumption			
Using <u>GCloud</u> compute/storage, <u>Firebase</u> , <u>Qualtrics</u> , image proc, HTML, R			
Field Research in Myanmar: Smartphone Data Collection		2017-2018	
<i>Stanford Screenomics Lab</i>			
Led a local team, recruited & managed participants in Yangon			
Algorithm Testing & UX Design: Differential Privacy		2015-2016	
<i>Harvard University School of Engineering & Applied Science, & IQSS</i>			
Designed & conducted empirical tests of theoretical differential privacy algorithms			
Designed <u>UX evaluation</u> procedures and outreach to social scientists			

SELECT AWARDS	Grant	Brown Institute Impact Grant, seed funding for media analysis start-up	2019
	Grant	Brown Institute Magic Grant for Media Innovation	2019
	Fellowship	Stanford Data Science Institute: year-long doctoral funding	2018
	Grant	Stanford University Freeman Spogli Institute award	2018
	Grant	Stanford University <i>EDGE</i> research grant	2018
	Grant	Stanford University Abassi Program research grant for fieldwork in SE Asia	2018
	Grant	Facebook PAC Award: Politics Online in Myanmar (w/ J. Pan)	2017
	Award	Research Assistantships: Stanford Cyber Initiative & Knight Foundation	2017
	Award	National Science Foundation REU Fellowship Recipient, Harvard University	2015
	Scholarship	University of Massachusetts Full Undergraduate Scholarship	2012

LANGUAGES &
SKILLS

- **Data & Programming:** R, SQL, cloud computing, Python, Stata, GCloud, bash, LaTeX, zTree
- **Keywords:** Computational social science, political communication, news exposure, big data, networks, time, causal inference, experiment design, statistics, data privacy, classic

ML, content analysis, sentiment analysis, comparative politics, experimental economics,
Screenomics, Southeast Asia, Myanmar

TEACHING
EXPERIENCE
& OTHER

Stanford University: Communication Research Methods (COMM 206)	2019
<i>Assistant to Prof. Jennifer Pan</i>	
Stanford University: Censorship and Propaganda (COMM 258)	2018
<i>Assistant to Prof. Jennifer Pan</i>	
Enlightened Myanmar Research: Accelerated Stata Course	2016
<i>Assistant to Prof. Jenifer Whitten-Woodring</i>	
Yangon, Myanmar: Radio Host & Live Performer	2015
<i>87.9 Mandalay F.M.: Programmed and hosted; performed music live on-air.</i>	
Journal of Visualized Experiments: Professional Voiceover & Editing	2015
Read scripts for science education videos, self-managed audio recording	2014
Myanmar Human Capital Solutions	
Designed & conducted surveys & interviews of employees & CEOs	
