Eleventh International AAAI Conference on Web and Social Media (ICWSM-17)

Montreal, Canada
15 – 18 May 2017

ISBN: 978-1-7138-5611-5

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571

Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2017) by Association for the Advancement of Artificial Intelligence
All rights reserved.

Printed with permission by Curran Associates, Inc. (2022)

For permission requests, please contact Association for the Advancement of Artificial Intelligence at the address below.

Association for the Advancement of Artificial Intelligence
2275 East Bayshore Road
Suite 160
Palo Alto, California 94303
USA

Phone: 1-650-328-3123
Fax: 1-650-321-4457

https://aaai.org/Press/press.php

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

FULL PAPERS

Untangling Emoji Popularity Through Semantic Embeddings 2
Wei Ai, Xuan Lu, Xuanzhe Liu, Ning Wang, Gang Huang, Qiaozhu Mei

To Thread Or Not to Thread: The Impact of Conversation Threading on Online Discussion..... 12
Pablo Aragón, Vicenç Gómez, Andreaks Kaltenbrunner

Who Makes Trends? Understanding Demographic Biases in Crowdsourced Recommendations..... 22
Abhijnan Chakraborty, Johnnatan Messias, Fabricio Benevenuto, Saptarshi Ghosh, Niloy Ganguly, Krishna Gummadi

The Language of Social Support in Social Media and Its Effect on Suicidal Ideation Risk..... 32
Munmun De Choudhury, Emre Kiciman

Selfie-Presentation in Everyday Life: A Large-Scale Characterization of Selfie Contexts on Instagram 42
Julia Deeb-Swihart, Christopher Polack, Eric Gilbert, Irfan Essa

#NotOkay: Understanding Gender-Based Violence in Social Media..... 52
Mai ElSherief, Elizabeth Belding, Dana Nguyen

"Be Careful; Things Can Be Worse than They Appear": Understanding Biased Algorithms and Users' Behavior Around Them in Rating Platforms 62
Motahhare Eslami, Kristen Vaccaro, Karrie Karahalios, Kevin Hamilton

Changes in Social Media Affect, Disclosure, and Sociality for a Sample of Transgender Americans in 2016's Political Climate 72
Oliver Haimson, Gillian Hayes

Predicting Popular and Viral Image Cascades in Pinterest..... 82
Jinyoung Han, Daejin Choi, Jungseock Joo, Chen-Nee Chuah

Kek, Cucks, and God Emperor Trump: A Measurement Study of 4chan's Politically Incorrect Forum and Its Effects on the Web 92
Gabriel Hine, Jeremiah Onaolapo, Emiliano De Cristofaro, Nicolas Kourtellis, Ilias Leontiadis, Riginos Samaras, Gianluca Stringhini, Jeremy Blackburn

Spice Up Your Chat: The Intentions and Sentiment Effects of Using Emojis 102
Tianran Hu, Han Guo, Hao Sun, Thuy-vy Nguyen, Jiebo Luo

The Evolution and Consequences of Peer Producing Wikipedia's Rules 112
Brian Keegan, Casey Fiesler

Spatio-Temporal Analysis of Reverted Wikipedia Edits..... 122
Johannes Kiesel, Martin Potthast, Matthias Hagen, Benno Stein

Better When it Was Smaller? Community Content and Behavior After Massive Growth..... 132
Zhiyuan Lin, Niloufar Salehi, Bowen Yao, Yiqi Chen, Michael Bernstein

The Substantial Interdependence of Wikipedia and Google: A Case Study on the Relationship Between Peer Production Communities and Information Technologies 142
Connor McMahon, Isaac Johnson, Brent Hecht

Understanding Emoji Ambiguity in Context: The Role of Text in Emoji-Related Miscommunication 152
Hannah Miller, Daniel Kluver, Jacob Thebault-Spieker, Loren Terveen, Brent Hecht

Gendered Conversation in a Social Game-Streaming Platform 162
Supun Nakandala, Giovanni Ciampaglia, Norman Su, Yong-Yeol Ahn

The Rich Get Richer? Limited Learning in Charitable Giving on Donorschoose.org 172
Chankyung Pak, Rick Wash

Online Popularity Under Promotion: Viral Potential, Forecasting, and the Economics of Time 182
Marian-Andrei Rizoiu, Lexing Xie Xie

How Editorial, Temporal and Social Biases Affect Online Food Popularity and Appreciation 192
Markus Rokicki, Eelco Herder, Christoph Trattner

Tracing the Use of Practices Through Networks of Collaboration 201
Rahmtin Rotabi, Cristian Danescu-Niculescu-Mizil, Jon Kleinberg

Analysing Timelines of National Histories Across Wikipedia Editions: A Comparative Computational Approach 210
Anna Samoilenko, Florian Lemmerich, Katrin Weller, Maria Zens, Markus Strohmaier

How User Condition Affects Community Dynamics in a Forum on Autism 220
Mattia Samory, Cinzia Pizzi, Enoch Peserico

Examining the Alternative Media Ecosystem Through the Production of Alternative Narratives of Mass Shooting Events on Twitter 230
Kate Starbird

Echo Chambers in Investment Discussion Boards 240
Shiliang Tang, Qingyun Liu, Megan McQueen, Scott Counts, Apurv Jain, Haitao Zheng, Ben Zhao

State of the Geotags: Motivations and Recent Changes 250
Dan Tasse, Zichen Liu, Alex Sciuto, Jason Hong

Which Size Matters? Effects of Crowd Size on Solution Quality in Big Data Q&A Communities 260
Yla Tausczik, Ping Wang, Joohee Choi

To Help Or Hinder: Real-Time Chat in Citizen Science 270
Ramine Tinati, Elena Simperl, Markus Luczak-Roesch

Online Human-Bot Interactions: Detection, Estimation, and Characterization 280
Onur Varol, Emilio Ferrara, Clayton Davis, Filippo Menczer, Alessandro Flammini

Identifying Effective Signals to Predict Deleted and Suspended Accounts on Twitter Across Languages 290
Svitlana Volkova, Eric Bell

Why Do Men Get More Attention? Exploring Factors Behind Success in an Online Design Community 299
Johannes Wachs, Aniko Hannak, András Vörös, Bálint Daróczy

Armed Conflicts in Online News: A Multilingual Study 309
Robert West, Jürgen Pfeffer

Adaptive Spammer Detection with Sparse Group Modeling 319
Liang Wu, Xia Hu, Fred Morstatter, Huan Liu

When Does More Money Work? Examining the Role of Perceived Fairness in Pay on the Performance Quality of Crowdworkers 327
Teng Ye, Sangseok You, Lionel Robert Jr.

The Power of the Patient Voice: Learning Indicators of Treatment Adherence from an Online Breast Cancer Forum 337
Zhijun Yin, Bradley Malin, Jeremy Warner, Pei-Yun Hsueh, Ching-Hua Chen

Cultural Diffusion and Trends in Facebook Photographs 347
Quanzeng You, Darío García-García, Mahohar Paluri, Jiebo Luo, Jungseock Joo

Characterizing Online Discussion Using Coarse Discourse Sequences 357
Amy Zhang, Bryan Culbertson, Praveen Paritosh

Shocking the Crowd: The Effect of Censorship Shocks on Chinese Wikipedia 367
Ark Fangzhou Zhang, Danielle Livneh, Ceren Budak, Lionel Robert, Daniel Romero

Community Identity and User Engagement in a Multi-Community Landscape 377
Justine Zhang, William Hamilton, Cristian Danescu-Niculescu-Mizil, Dan Jurafsky, Jure Leskovec

Cold Hard E-Cash: Friends and Vendors in the Venmo Digital Payments System 387
Xinyi Zhang, Shiliang Tang, Yun Zhao, Gang Wang, Haitao Zheng, Ben Zhao

Wearing Many (Social) Hats: How Different Are Your Different Social Network Personae? 397
Changtao Zhong, Hau-wen Chang, Dmytro Karamshuk, Dongwon Lee, Nishanth Sastry

DATASET PAPERS

TokTrack: A Complete Token Provenance and Change Tracking Dataset for the English Wikipedia 408
Fabian Flöck, Kenan Erdogan, Maribel Acosta

Fashion Conversation Data on Instagram 418
Yu-i Ha, Sejeong Kwon, Meeyoung Cha, Jungseock Joo

Data Sets: Word Embeddings Learned from Tweets and General Data 428
Quanzhi Li, Sameena Shah, Xiaomo Liu, Armineh Nourbakhsh

EmojiNet: An Open Service and API for Emoji Sense Discovery 437
Sanjaya Wijeratne, Lakshika Balasuriya, Amit Sheth, Derek Doran

POSTER PAPERS

Recognizing Pathogenic Empathy in Social Media 448
Muhammad Abdul-Mageed, Anneke Buffone, Hao Peng, Johannes Eichstaedt, Lyle Ungar

On Quitting: Performance and Practice in Online Game Play 452
Tushar Agarwal, Keith Burghardt, Kristina Lerman

QT2S: A System for Monitoring Road Traffic Via Fine Grounding of Tweets 456
Noora Al Emadi, Sofiane Abbar, Javier Borge-Holthoefer, Francisco Guzman, Fabrizio Sebastiani

Are There Gender Differences in Professional Self-Promotion? an Empirical Case Study of LinkedIn Profiles Among Recent MBA Graduates 460
Kristen Altenburger, Rajlakshmi De, Kaylyn Frazier, Nikolai Avteniev, Jim Hamilton

What Gets Media Attention and How Media Attention Evolves Over Time: Large-Scale Empirical Evidence from 196 Countries 464
Jisun An, Haewon Kwak

Ranking with Social Cues: Integrating Online Review Scores and Popularity Information 468
Pantelis Pipergias Analytis, Alexia Delfino, Juliane Kämmer, Mehdi Moussaid, Thorsten Joachims

25 Tweets to Know You: A New Model to Predict Personality with Social Media 472
Pierre-Hadrien Arnoux, Anbang Xu, Neil Boyette, Jalal Mahmud, Rama Akkiraju, Vibha Sinha

Separating the Wheat from the Chaff: Evaluating Success Determinants for Online Q&A Communities 476
Erik Aumayr, Conor Hayes

Identifying Leading Indicators of Product Recalls from Online Reviews Using Positive Unlabeled Learning and Domain Adaptation 480
Shreesh Bhat, Aron Culotta

Is Slacktivism Underrated? Measuring the Value of Slacktivists for Online Social Movements 484
Lia Bozarth, Ceren Budak

Exploiting Contextual Information for Fine-Grained Tweet Geolocation 488
Wen-Haw Chong, Ee-Peng Lim

Nasty, Brutish, and Short: What Makes Election News Popular on Twitter? 492
Sophie Chou, Deb Roy

A Motif-Based Approach for Identifying Controversy 496
Mauro Coletto, Kiran Garimella, Aristides Gionis, Claudio Lucchese

Just the Facts:' Exploring the Relationship Between Emotional Language and Member Satisfaction in Enterprise Online Communities 500
Ryan Compton, Jilin Chen, Eben Haber, Hernan Badenes, Steve Whittaker

Suitable for All Ages: Using Reviews to Determine Appropriateness of Products 504
Elizabeth Daly, Oznur Alkan, Michael Muller

How Fast Will You Get a Response? Predicting Interval Time for Reciprocal Link Creation 508
Vachik Dave, Mohammad Al Hasan, Chandan Reddy

Automated Hate Speech Detection and the Problem of Offensive Language 512
Thomas Davidson, Dana Warmsley, Michael Macy, Ingmar Weber

A Gendered Analysis of Leadership in Enterprise Social Networks 516
Giorgia Di Tommaso, Giovanni Stilo, Paola Velardi

Dynamics of Content Quality in Collaborative Knowledge Production 520
Emilio Ferrara, Nazanin Alipoufard, Keith Burghardt, Chiranth Gopal, Kristina Lerman

The Ebb and Flow of Controversial Debates on Social Media 524
Kiran Garimella, Gianmarco De Francisci Morales, Aristides Gionis, Michael Mathioudakis

A Long-Term Analysis of Polarization on Twitter 528
Venkata Rama Kiran Garimella, Ingmar Weber

Spam Users Identification in Wikipedia Via Editing Behavior 532
Thomas Green, Francesca Spezzano

Antagonism Also Flows Through Retweets: The Impact of Out-Of-Context Quotes in Opinion Polarization Analysis 536
Pedro Guerra, Roberto Nalon, Renato Assunção, Wagner Meira Jr.

Loyalty in Online Communities 540
William Hamilton, Justine Zhang, Cristian Danescu-Niculescu-Mizil, Dan Jurafsky, Jure Leskovec

"Voters of the Year": 19 Voters Who Were Unintentional Election Poll Sensors on Twitter 544
William Hobbs, Lisa Friedland, Kenneth Joseph, Oren Tsur, Stefan Wojcik, David Lazer

A World of Difference: Divergent Word Interpretations Among People 548
Tianran Hu, Ruihua Song, Maya Abtahian, Philip Ding, Xing Xie, Jiebo Luo

A Longitudinal Study of Topic Classification on Twitter 552
Zahra Iman, Scott Sanner, Mohamed Reda Bouadjenek, Lexing Xie

Modeling of Political Discourse Framing on Twitter 556
Kristen Johnson, Di Jin, Dan Goldwasser

Behavioral Analysis of Review Fraud: Linking Malicious Crowdsourcing to Amazon and Beyond 560
Parisa Kaghazgaran, James Caverlee, Majid Alfifi

How to Manipulate Social Media: Analyzing Political Astroturfing Using Ground Truth Data from South Korea 564
Franziska Keller, David Schoch, Sebastian Stier, JungHwan Yang

US Presidential Election: What Engaged People on Facebook 568
Milad Kharratzadeh, Deniz Ustebay

Face-To-BMI: Using Computer Vision to Infer Body Mass Index on Social Media 572
Enes Kocabey, Mustafa Camurcu, Ferda Ofli, Yusuf Aytar, Javier Marin, Antonio Torralba, Ingmar Weber

From Camera to Deathbed: Understanding Dangerous Selfies on Social Media 576
Hemank Lamba, Varun Bharadhwaj, Mayank Vachher, Divyansh Agarwal, Megha Arora, Niharika Sachdeva, Ponnurangam Kumaraguru

Controlling for Unobserved Confounds in Classification Using Correlational Constraints 580
Virgile Landeiro, Aron Culotta

Scalable News Slant Measurement Using Twitter 584
Huyen Le, Zubair Shafiq, Padmini Srinivasan

Understanding How People Attend to and Engage with Foreign Language Posts in Multilingual Newsfeeds 588
Hajin Lim, Susan Fussell

Fostering User Engagement: Rhetorical Devices for Applause Generation Learnt from TED Talks 592
Zhe Liu, Anbang Xu, Mengdi Zhang, Jalal Mahmud, Vibha Sinha

Distinguishing the Wood from the Trees: Contrasting Collection Methods to Understand Bias in a Longitudinal Brexit Twitter Dataset 596
Clare Llewellyn, Laura Cram

Sparse Overlap Cross-Platform Recommendation Via Adaptive Similarity Structure Regularization 600
Hanqing Lu, Chaochao Chen, Qinyue Jiang

A Computational Approach to Perceived Trustworthiness of Airbnb Host Profiles 604
Xiao Ma, Trishala Neeraj, Mor Naaman

Detecting the Hate Code on Social Media 608
Rijul Magu, Kshitij Joshi, Jiebo Luo

Language Use Matters: Analysis of the Linguistic Structure of Question Texts Can Characterize Answerability in Quora 612
Suman Maity, Aman Kharb, Animesh Mukherjee

The Role of Optimal Distinctiveness and Homophily in Online Dating 616
Danaja Maldeniya, Arun Varghese, Toby Stuart, Daniel Romero

Two-Phase Influence Maximization in Social Networks with Seed Nodes and Referral Incentives 620
Sneha Mondal, Swapnil Dhamal, Y. Narahari

Predicting Movie Genre Preferences from Personality and Values of Social Media Users 624
Md. Saddam Hossain Mukta, Euna Mehnaz Khan, Mohammed Eunus Ali, Jalal Mahmud

Automatically Identifying Good Conversations Online (Yes, They Do Exist!) 628
Courtney Napoles, Aasish Pappu, Joel Tetreault

Robust Classification of Crisis-Related Data on Social Networks Using Convolutional Neural Networks 632
Dat Nguyen, Kamela Ali Al Mannai, Shafiq Joty, Hassan Sajjad, Muhammad Imran, Prasenjit Mitra

Mood Congruence Or Mood Consistency? Examining Aggregated Twitter Sentiment Towards Ads in 2016 Super Bowl 636
Yuheng Hu, Tingting Nian, Cheng Chen

Fertility and Its Meaning: Evidence from Search Behavior 640
Jussi Ojala, Emilio Zagheni, Francesco Billari, Ingmar Weber

Inverse Dynamical Inheritance in Stack Exchange Taxonomies 644
César Ojeda, Kostadin Cvejoski, Rafet Sifa, Christian Bauckhage

Changes in Social Media Behavior During Life Periods of Uncertainty 648
Xinru Page, Marco Marabelli

DeepCity: A Feature Learning Framework for Mining Location Check-Ins 652
Jun Pang, Yang Zhang

Headlines Matter: Using Headlines to Predict the Popularity of News Articles on Twitter and Facebook 656
Alicja Piotrkowicz, Vania Dimitrova, Jahna Otterbacher, Katja Markert

Querying Documents Annotated by Interconnected Entities 660
Shouq Sadah, Moloud Shahbazi, Vagelis Hristidis

What Comments Did I Get? How Post and Comment Characteristics Predict Interaction Satisfaction on Facebook 664
Shruti Sannon, Yoon Hyung Choi, Jessie Taft, Natalya Bazarova

Towards Measuring Fine-Grained Diversity Using Social Media Photographs 668
Vivek Singh, Saket Hegde, Akanksha Atrey

Measuring, Predicting and Visualizing Short-Term Change in Word Representation and Usage in VKontakte Social Network 672
Ian Stewart, Dustin Arendt, Eric Bell, Svitlana Volkova

Characteristics of On-Time and Late Reward Delivery Projects 676
Thanh Tran, Kyumin Lee

On the Interpretability of Thresholded Social Networks 680
Oren Tsur, David Lazer

Mapping Twitter Conversation Landscapes 684
Soroush Vosoughi, Prashanth Vijayaraghavan, Ann Yuan, Deb Roy

Designing a Social Support System for College Adjustment and Social Support 688
Donghee Yvette Wohn, Mousa Ahmadi, Leiping Gong, Indraneel Kulkarni, Atisha Poojari

Early Identification of Personalized Trending Topics in Microblogging 692
Liang Wu, Xia Hu, Huan Liu

Detecting Camouflaged Content Polluters 696
Liang Wu, Xia Hu, Fred Morstatter, Huan Liu

A First Look at User Switching Behaviors Over Multiple Video Content Providers 700
Huan Yan, Tzu-Heng Lin, Gang Wang, Yong Li, Haitao Zheng, Depeng Jin, Ben Zhao

Self-Disclosure and Channel Difference in Online Health Support Groups 704
Diyi Yang, Zheng Yao, Robert Kraut

Should We Be Confident in Peer Effects Estimated from Social Network Crawls? 708
Jiasen Yang, Bruno Ribeiro, Jennifer Neville

Twitter911: A Cautionary Tale 712
Anis Zaman, Nabil Hossain, Henry Kautz

Event Organization 101: Understanding Latent Factors of Event Popularity 716
Shuo Zhang, Qin Lv

Detecting Socio-Economic Impact of Cultural Investment Through Geo-Social Network Analysis 720
Xiao Zhou, Desislava Hristova, Anastasios Noulas, Cecilia Mascolo

DEMONSTRATION PAPERS

Visualizing Health Awareness in the Middle East 725
Matheus Araujo, Yelena Mejova, Michael Aupetit, Ingmar Weber

Programming Languages in GitHub: A Visualization in Hyperbolic Plane 727
Dorota Celińska, Eryk Kopczyński

CitizenHelper: A Streaming Analytics System to Mine Citizen and Web Data for Humanitarian Organizations 729
Prakruthi Karuna, Mohammad Rana, Hemant Purohit

Junet: A Julia Package for Network Research 731
Igor Zakhlebin

OBSERVATIONAL STUDIES THROUGH SOCIAL MEDIA

Estimating the Effect of Exercising on Users' Online Behavior 734
Seyed Mirlohi Falavarjani, Hawre Hosseini, Zeinab Noorian, Ebrahim Bagheri

NEWS AND PUBLIC OPINION

Data-Driven Approach to Measuring the Level of Press Freedom Using Media Attention Diversity from Unfiltered News 739
Jisun An, Haewon Kwak

News Media Coverage of Refugees in 2016: A GDELT Case Study 743
Emina Boudemagh, Izabela Moise

The Impact of Crowds on News Engagement: A Reddit Case Study 751
Benjamin Horne, Sibel Adali

This Just In: Fake News Packs a Lot in Title, Uses Simpler, Repetitive Content in Text Body, More Similar to Satire than Real News 759
Benjamin Horne, Sibel Adali

The Impact of News Values and Linguistic Style on the Popularity of Headlines on Twitter and Facebook 767
Alicja Piotrkowicz, Vania Dimitrova, Jahna Otterbacher, Katja Markert

Tactics and Tallies: A Study of the 2016 U.S. Presidential Campaign Using Twitter 'Likes' 775
Yu Wang, Xiyang Zhang, Jiebo Luo

Author Index