Where We Are Now

The Observatory on Social Media is doing well in its second year. This booklet is an update for our funders, advisory boards, and fellow researchers on our activities in the last six months. It’s been a tough winter with another local spike of Covid cases and a very cold spell in Bloomington. Nevertheless, we have made a lot of progress since November 2020. With vaccinations and spring sunshine, things are looking brighter now and we look forward to some exciting new projects over the next few months.

We are thrilled to announce that our Director, Fil Menczer, has not only recently been promoted to the rank of Distinguished Professor, but he has also been made a Fellow of the ACM. We are also delighted to announce that Sarah Beverton has joined the team as a Software Developer. The Observatory now has six Primary Investigators, eight Core Staff, and sixteen students currently working on the many ongoing projects. Many thanks to everyone who has contributed to the Observatory!

John Bryden
Executive Director
New Data Journalism Certificate

Indiana University has completed the assessment of a 100% Online Graduate Certificate in Data Journalism, to be taught by OSoMe faculty.

The 12-credit certificate is intended for professional journalists. Courses will be taught in tandem with our Master's in Media data journalism concentration.
OSoMe Tools

Our latest tool is **CoVaxxy**. This dashboard monitors vaccine misinformation and vaccine uptake rates across US states. It shows information about which hashtags have been spreading through the Twitter vaccine conversation, and which website sources are being shared. The site has been visited by over 2K users in more than 30 countries since its launch in February.

CoVaxxy

Visualizing the relationship between COVID-19 vaccine adoption and online (mis)information

Online Discussion and Vaccine Adoption: Geography

Control and compare the maps by selecting data to visualize with each map's respective dropdown.

- **Twitter discussion map**
  - Percentage of tweets that include low credibility sources

- **Vaccine adoption map**
  - Percent of state unwilling to accept vaccine (survey)
**Hoaxy**

Hoaxy allows users to visualize the spread of claims, fact checking, and other information across Twitter. In the last six months the website has had 23K visitors. We have been updating the low-credibility sources that Hoaxy is tracking to maintain its relevance. In the near future, we plan to improve the interface and add new features including Full Archive Search functionality through leveraging the new Twitter V2 API.

**BotSlayer**

This tool detects suspicious coordination and bot amplification of Twitter accounts. We've recently reached over 600 downloads. BotSlayer is used by organizations in countries like Mexico, Brazil, Venezuela, UAE, Hong Kong, Turkey, China, Iran, Jordan, Ghana, and Guatemala to combat political disinformation and manipulation campaigns, protect free and fair elections, and journalists reporting on governmental affairs. The past few months have been devoted to improving the robustness of the software. The future roadmap in the upcoming months will include an overhaul of the backend, an upgrade to Twitter v2 API, and a major improvement in the campaign detection algorithm.

**Botometer**

Botometer identifies bot-like Twitter accounts. Under the hood, it extracts characteristics from a Twitter account’s profile, content, actions, and social network and employs machine learning to perform the estimation. Botometer is our most widely used tool. In the last six months, it has over 41M API requests and 69K website visitors. We also have some exciting upgrades with Botometer. Specifically, we have recently expanded the capabilities of Botometer to work with a new Ensemble of Specialized Classifiers technique, increasing its accuracy on accounts with novel bot-like behaviors. In the near future, we plan to port Botometer and BotometerLite to the new Twitter V2 API.

We have several tools available to the public at osome.iu.edu/tools.
Survey Research

OSoMe periodically engages in survey work to examine audience and user trends in relation to social media. We tracked public opinion about unsupported narratives in the 2020 Presidential election. We are continuing our surveys with new research into exposure and impacts of vaccine misinformation. An up-to-date list of all surveys can be found at osome.iu.edu/research/survey.

Media coverage

- Director Fil Menczer discussed Hoaxy in an interview that made the front cover of Newsweek: As QAnon Conspiracy Theories Draw New Believers, Scientists Take Aim at Misinformation Pandemic.
- Popular science magazines Scientific American (Twitter Bots Are a Major Source of Climate Disinformation) and New Scientist (AI can distinguish between bots and humans based on Twitter activity) showcased the use of Botometer in applied research.
- The new CoVaxxy tool has been featured in a number of new articles, including in the Indianapolis Star, USA Today, Axios, Washington Examiner, and the NBC affiliated Wave3 channel.
- A number of articles in the mainstream press highlighted the Observatory and its tools around the US election, including the NY Times, USA Today, Bloomberg and Washington Post.
- Knight Fellow Matt DeVerna gave a talk on the Superheroes of Science podcast and PhD student Pik-Mai Hui gave an interview to Ms Magazine.
- Dean Jim Shanahan has done a number of radio and TV interviews, including CBS 4 and WFYI, All In, and wrote an article for The Conversation (Support for QAnon is hard to measure – and polls may overestimate it).
- Affiliate faculty Mike Gruszczynski appeared on Indiana Public Media.
Grants Submitted:
- NSF Expeditions – Reasoning About Misinformation: A Principled Approach
- NSF HNDS 2021 – A Collaborative Infrastructure for Social Media Data Collection
- IES Transformative – Digital Media Literacy at Scale: Developing the Social Media Training Simulator (SMTS)

Projects Awarded:
- SSRC – How Does Facebook Influence Parliament?
- Open Technology Fund – Observatory on Social Media

Presentations, tutorials, workshops:
- Conference on Social-Cybersecurity in Times of Crisis and Change, CMU, Nov 2020
- CounterBalance Seminar Series, Santa Fe Institute, Nov 2020
- Panel on Trust and Authenticity on Social Media, America’s Role in the World, Hamilton Lugar School of Global and International Studies, Indiana University, Dec 2020
- PSA Parliaments Annual Conferences: How does Facebook influence parliament? Jan 2021
- Trusted Web podcast, Jan 2021
- Invited talk, Braver Angels Media Action Group, Feb 2021
- (Anti-)Social Media: Threats and Threads of a New World Order in conjunction with IU HLS and Jindal University, Apr 2021
- Keynote, European Observatory against Disinformation, Apr 2021
- Center for Social Media and Politics Annual Conference, NYU, Apr 2021
- Sorbonne-IU-UNAM webinar series: The Great Inventions that Changed the World, Apr 2021
Publications

- *Asymmetrical perceptions of partisan political bots.* HY Yan, KC Yang, F Menczer, J Shanahan. *New Media & Society.*