Justin Prudhomme:

Thank you, Soojin. Thank you, and good morning everyone, and welcome to the first day of the 2020 USAID workshop on communicating democracy, human rights, and governance. We're excited to have so many of you here to join us.

Justin Prudhomme:

Before we begin, I want to take a quick moment to recognize Jessica Benton Cooney and the USAID Center of Excellence on Democracy, Human Rights and Governance for organizing this three-day workshop. I think that convening the community like this is enormously important to maximize the impact of our work. And effective communication being a powerful tool in achieving that said goal. To do it during the socially distance current reality is even more commendable.

Justin Prudhomme:

To get started, we're going to hear from the assistant administrator for the USAID Bureau for legislative and public affairs, Richard Parker. Assistant Administrator Parker's experience in public policy and communications spans both the public and private sectors, including roles at the U.S. Department of Health and Human Services, USGLP, Peace Corps, and most recently a vice president of external affairs at Project Concern International.

Justin Prudhomme:

Since he joined at the USAID, the LPA has undertaken several innovative communications initiatives including the Democracy Is campaign that I hope many of you are familiar with. After Administrator Parker kindly offered to take some questions at the end of his remarks as time allows, and I want to just encourage all of you and remind you that you need to type your questions into the chat box on your screen, which you can do at any point, and we'll get to them at the end.

Justin Prudhomme:

Richard, thanks for joining us. Over to you.

Richard Parker:

Thanks, Justin. Good morning, everyone. I hope you can all hear me okay from the spare bedroom in my house. I'm so sorry that we can't all be together in person, but thank you so much for joining us for the USAID 2020 workshop on communicating democracy, human right, and governance. I was actually confirmed as assistant administrator one year ago this week actually, and it's such an honor to work alongside each of you every day and tell the remarkable story of USAID, and the difference that our programming is making around the world.

Richard Parker:

I remember talking to a friend of mine who's a deputy mission director right after I got confirmed and I asked him, I was like, "So you know, what is it like working with LPA? How can we actually work better with the field and tell our story?" And he said, "You know, Richard, USAID is a 24/7 good news walking story for the American people, but we just don't tell our story well enough."

Richard Parker:

So that's really been my mission every day since I've been here to make sure that we are telling our story. Americans should be proud of the return on investment that they receive for their taxpayer dollars and the work that we do. And our job is really to be able to tell them about that and what it is that we're doing. And as a country with the world's longest continuous democracy, we have a very special role to be able to do that, particularly with democracy, human rights, and governance.

Richard Parker:

It's the key to everything that we do at the agency. And in this era of great power competition, it's also a great contrast to other nations, so we work with communities and governance to make sure that we're encouraging transparency, accountability, resiliency with no strings attached to the systems. And that is the key to really helping countries on their journey to self-reliance.

Richard Parker:

Democracy, rights, and governance is hard work. It takes sustained commitment. Like a lot of our other work, there's not a vaccine that's for it. It's not a commodity that we can deliver. It's not a piece of infrastructure that we can brand. Actually, all of these things are very important, but the work of DRG programming enhances all of them and allows us to be able to do that other work much better. That's why your work is so important.

Richard Parker:

Democracy, rights, and governance takes sustained effort and engagement to nurture and then to protect. We see danger signs of course around the world with democracy right now. We see it in Venezuela and in our own hemisphere. We have seen in elections in Burundi last week. We see it for the open persecution of the Uyghurs. And Guangzhou in China right now.

Richard Parker:

All of this further highlights the importance of the work being done by USAID, and then also by all of our partners out here and working to do this work. That's one of the reasons why we really wanted to put a spotlight on democracy this year. Justin had mentioned the democracy plus campaign, which I hope that you're all really familiar with.

Richard Parker:

This was a priority for a former administrator Green, who you actually know is an old democracy person himself, and also something that acting administrator Baza has really put a priority on as well. And I hope you've been able to see some of the stories that we've been highlighting over the past six months since the beginning of the campaign.

Richard Parker:

There's a couple that I just want to really highlight quickly. So in Tunisia, USAID trained civic ambassadors who encourage women to register, to vote in Tunisia and there's a wonderful story about Selma Sibisi, who lived out in a rural village in South Tunisia.

Richard Parker:

And so she was actually encouraged by a door to door program to be able to register to vote and she actually voted for the first time. In Kosovo, USAID has worked alongside citizens to strengthen rule of

law and justice, and the first female court president Pristina is actually highlighted in one of the videos there. And USAID did work with her and actually is working on other programs with her to encourage more women to become lawyers in Kosovo.

Richard Parker:

In the fall, we aim to make sure that women and other marginalized communities have equal access to post earthquake reconstruction and resources, and that they're included within the governance process. So Archana Tomom is a strong advocate for that. And we have a wonderful video that talks about some of her work, particularly in the constitution process there in Nepal.

Richard Parker:

And in Colombia, we support a transition center and Cuca Tavis assisting individuals who are arriving from Venezuela, who are fleeing what's happening there. The crisis in Venezuela has caused millions so to leave. To date, nearly five million people have fled Venezuela. And people like Edwin and Maria Fernandez, who are receiving systems and health support.

Richard Parker:

I actually was in Peru last fall and went to a feeding center in Lima in the capital that actually worked specifically with Venezuelan refugees. And I remember talking with a woman who had left everything that she had there. So she was a grandmother, she still had programs there and unlike a lot of other refugee situations, so I asked her, I was like, would you go back? And she said, yes, definitely would go back if things were to change, and that's something that we don't see.

Richard Parker:

So I think that the programming particularly that we're working on in Venezuela is something that's so key and so important right now to allow people to be able to come home. Finally, your work is more important than ever now in the COVID pandemic. Acting Administrator Baza have said many times that COVID is not just a public health crisis. It's actually an economic crisis. It's an education crisis.

Richard Parker:

And it is a crisis of democracy and human rights and governance. And we see that just as we cannot let COVID settings back when it comes to education or maternal child health or vaccinations and other things. We can't let COVID set us back from a democracy and governance perspective. And we have to make sure that we remain vigilant particularly with fragile democracies and to ensure that they are protected during this time.

Richard Parker:

Communities and countries with weak institutions and with bad fragile democracies will require additional supports to recover, as we recover from COVID. And those effects will linger long after the virus itself has been contained. We talk a lot about essential workers and things these days here in the US and services these days. And for those reasons, knowing that democracy and governance work is going to really take the long term after the virus has ended.

Richard Parker:

Then I think all of you and social workers are making sure that we continue our D&T programming. So thank you so much for your participation today and for everything that you do to help us to be able to tell the important story that's out there. I know you have a packed agenda that I'm happy to take a couple of questions before we go on to the next presenter if there's time for that. So thank you all very much for everything that you do. Justin, I think you might be muted.

Justin Prudhomme:

It was bound to happen at some point. Glad I got it out of the way early. And thank you for those remarks and thanks for being here to kick off the three day workshop. Does anyone have any questions before we move on to today's presentation? If you do, type them into the chat box now, if you don't, I'm sure we can always get back to them at a later time.

Justin Prudhomme:

Seeing none, I suppose we'll move on to today's presentation. Tim Weninger is an associate professor in the College of Engineering at the University of Notre Dame, whose researches in machine learning, network science and social media. His presentation today is titled Fact, Fiction, and the Newsfeed. Tim, thanks for joining us. Over to you.

Tim Weninger:

Right. Thank you, Justin and thank you for the invitation. This is me, and today I'll be talking about fact, fiction and the news feed. I wanted to I guess, echo some of the remarks by Mr. Parker about how absolutely vital and critical communicating democracy human rights and governance is. The title of my talk is, I guess, talking about some fake news essentially and disinformation misinformation, which is critical in this space that you all are working.

Tim Weninger:

And I have to say that I am an academic by trade, and my first and foremost, I guess "call" is to study human behavior and how people interact and consume information, especially on social media. But since I'm an academic, I actually have an academic title to this talk. So the academic title is artificial promotion in the attention economy.

Tim Weninger:

And I'm a professor at the University of Notre Dame where we study these types of things. And I do want to say before we get started that I will speak for probably 35 minutes or so, but if you have any questions as we move along, we're going to go through probably three or four different studies that we've run, talking about some of the work that's ongoing, and you will have questions and maybe even challenges to some of the things I will say or claim.

Tim Weninger:

And if you do, I encourage you, I plead with you, please and ask those questions into the chat. And if I don't get to them immediately, we'll get to them at the end. So artificial promotion in the attention economy, what does that mean? And I think the best way to talk about artificial promotion and the attention economy is to separate things as is through an example.

Tim Weninger:

So, as you probably know, a lot of shopping happens right now online. And the best way I could think about artificial promotion is the following. Let's say that I need to buy a vacuum cleaner. I'm home all the time now, because I can't go to work. And I really need to vacuum my house because I'm getting the carpet dirty, but my vacuum cleaner is broken. So what does anyone do? They can't go to the store so they go on to amazon.com.

Tim Weninger:

They type in vacuum cleaner and Amazon will return to the user 20 different results, maybe 25. And there are 1000 different types of vacuum cleaners, but the top results are really interesting. What you see here is that the first two results I've highlighted, and I'm going to point to here. There we go. It shows that it's sponsored, right? And because I grew up using Google, and Amazon, and eBay, and all the things, the first two search results, I kind of skipped because I know they're sponsored.

Tim Weninger:

And what ends up happening here is that Malay and iRobot, they paid Amazon some amount of dollars to highlight their vacuum cleaners at the top of the search, which is great, and it cost them a lot of money to do this. And maybe there's some more vacuum cleaners because people see it. And that's the idea of the attention economy. People, they only have so much time to scroll through results.

Tim Weninger:

And so there's an entire economy built around attention and getting products and ideas in front of people. And so sponsored ads are one way to do that. Now, if you don't want to sponsor ads, you can always try to get a relevant ... After the sponsored ads, I suppose there's number three, search results here. Come on, number three, search result, number four, search result, five, six, and seven all the way down. And those are sorted by relevance.

Tim Weninger:

And this idea of what Amazon considers to be relevant to your search results, and we see that this little vacuum cleaner here is Amazon's choice for some reason. Then there's a dirt devil vacuum cleaner, which is number four, and then there's something else number five, six, and seven. But how does Amazon choose those rankings? And there's a lot of things that go into it. Is it a vacuum cleaner? Does it sell? Because Amazon makes money when you sell items and so on.

Tim Weninger:

A lot of interesting things. Probably the most important factor that Amazon takes into account is the ratings. And so you'll see here that the digital has 9000 ratings and the double has 11,000. There's four points on stars and people are liking it. And that is an interesting question, is that if I have a new vacuum cleaner that's coming to market and I want to get that sold on Amazon to the top of the search results it needs to be.

Tim Weninger:

And now I can spend hundreds of thousands of dollars like iRobot and Melee to sponsor that vacuum cleaner or what I could do is I could artificially promote my vacuum cleaner. And the way to do that is to get 11,000 of your closest friends or maybe an economy of 11,000 people that you can find online. And

what you can do is ask them to give positive reviews. And you can see this wade into these parts of the internet.

Tim Weninger:

You can see requests from different companies and conglomerates and organizations, and for this example it would say please leave a skeptical, (the language is interesting), please leave a skeptical, but positive review for my dirt devil vacuum cleaner and give it five stars. So you'll see a lot of these reviews are, I didn't think that the dirt devil vacuum cleaner would work, but it changed my life, five stars.

Tim Weninger:

Skeptical but positive, because those are the most believable. And it'll cost maybe a quarter, 10 cents, each review. And so 11,000 reviews times 10 cents is much less than $100,000 to promote your iRobot vacuum cleaner through the normal channels. And that's what we call artificial promotion. These are spam reviews that are are trying to increase the attention that is given to certain products.

Tim Weninger:

And that's fine that Amazon is combating that they have a whole building of people in Seattle that look at ratings spam because it affects their business. If people don't trust the reviews and the rankings Amazon gives them, then they're not going to go to Amazon anymore. Now the same thing I argue happens on social media. We have a here a ranked list of news stories that we only have so much attention, we only can look at the first 20 or so headline.

Tim Weninger:

So what Twitter, and Facebook, and Reddit show to us in the top 25 search results or top 25 Newsfeed items is extremely important in communicating the news and cat videos that are important that we all should see. And because there's so many different ideas out there that needs to be, or that organizations want to be heard, they will try to artificially promote those ideas. And that's what I tried.

Tim Weninger:

That's where I stepped in. That's the thing that I tried to study. So as an example, we can look at the manipulation of social news. The idea here is that we have news second opinion coming in to Reddit to dig fleshed out Facebook, Twitter. This is a really old slide and I'll talk about why that is in a little bit.

Tim Weninger:

And then what I define as an influence attack is when we have some malicious group comes in and they like all the bad stuff and they dislike, or they down vote or otherwise, try to hide the good stuff with the idea that is that they change the regular users, the well meaning unsuspecting users, well then maybe reshare or retweets, the bad stuff, and then inspect all of their friends.

Tim Weninger:

We call that influence attack. And this is something that I had proposed back in 2013, and this is three years before the most recent kind of fake news that's been coming up with respect to the Russia investigation and all the new stuff that's been coming out with different organizations trying to subvert different news stories.

Tim Weninger:

And so since then, we've been really studying this. And what we're talking about today are three different studies that we've conducted to explore the dynamics of how consumers online, and just well meaning news readers are affected by this new technique. So the first study is on a creation spread of misinformation. And I'm going to start using some scientific terms here, but I'm going to try to walk you through it a little bit.

Tim Weninger:

What we did is we studied this idea of rating spam on social media and we performed what's called a vote injection experiment. And this is what's called an in vivo experiment, which means that I did this live in the wild. So what I ended up doing is I went to social media website. I got human subjects permission, and I'm going to talk about Reddit for this example.

Tim Weninger:

Reddit is like the Twitter or Facebook, a little bit different, but I think the third or fourth most popular website in the world right now. And I wrote a bot that every two minutes for four months, randomly uploaded or downloaded posts, especially early on in the life cycle. And this resulted in 93,000 vote injections. And then I came back a week later and I said, okay, how much did a single bot post?

Tim Weninger:

So if just one person injected a single vote early on in a single like or single retweet early on into a post by cycle, what effect does that have on the eventual popularity of that post? And so it turns out, it has a pretty big effect. It is 20% more likely to reach the front page. That's what the left plot is saying. Now, if I down vote you if I ... Because on Reddit, you can like and you can dislike.

Tim Weninger:

If I down vote you, it doesn't have much of an effect on the post, but on the comments it has a pretty big effect. And there's reasons for that I'm not going to go into but especially this on the left here, you can see that this distance here from if I up vote you versus if I do nothing, that 20% means that you're 20% more likely to reach the front page and that's just one single vote. One click.

Tim Weninger:

Now imagine if I had two or five or 10, or I had a university full of undergraduates, that I marshaled into promoting something, what effect would that have? Of course, that would probably be not an ethical experiment to run, but people have been studying this. And I want to share with you .... Oh, yeah. And I want to share with you maybe a little bit of why.

Tim Weninger:

And so we're starting to understand why this is. And it actually is called the principle of accumulative advantage. It's also called the Matthew effect. And for those of you who are maybe, I don't know, know little about the book of Matthew in the Christian Bible. There's a verse that says for to everyone who has, more will be given, and he will have an abundance.

Tim Weninger:

And this idea of if you are rich, you get richer. If you have advantage, you accumulate that advantage. And the same thing happens in this case where if you are in a high position of ranking on social media, then more people will see your post, they'll have more of an opportunity to up vote or like or reshare that post and then more people will be able to see that as a result. It's kind of a snowball effect.

Tim Weninger:

Now, that was just with one votes. Now how easy is it to do this, to marshal 200 or 1000 different votes? And like I said, there are many dark places on the internet that I don't go to. But there was an investigative journalist who took some of my research and took it to the next logical conclusion and I want to share with you. And I gave a TED Talk on this. But I want to share with you just a two minute video of this research.

Tim Weninger:

So here it is. Soojin, could you switch everyone? And then, by the way, before we do, I want to say Soojin's about to link you to a YouTube video. It's two and a half minutes long. And so I will wait for three minutes and then we will reconvene back in the space.

Soojin Ku:

Thank you Tim. Momentarily, you will see screen shifts and we'll be taken to a new web browser with the video. Please click play when you arrive at the screen. After you have finished watching the video, you may close your web browser and redirect to this eight Connect page. Please do keep in mind that you have a complete control over your own volume. And with that, please enjoy the video.

Soojin Ku:

(Silence)

Tim Weninger:

Okay, so I'm going to assume that you are all finishing or close to finished with that video. It is actually part of a longer piece that's about 12 or 15 minutes long that I cut down for just the parts that I would like us to note. In this particular video it goes on to a couple more, not experiments, but attempts at buying votes. They created a video about... It was a Netflix series called Narcos, and they made a trailer for season three.

Tim Weninger:

And they bought a bunch of votes and got it up to the front page of social media channels. And at the end of it, Netflix had to come out and say there is no Narcos season three. This is fake. And that was just a couple hundred dollars. That's all it took to do this. Now we were trying to just … Not we, I shouldn't say we. Rather than they were trying to just do harmless things, but imagine if you didn't have something harmless.

Tim Weninger:

You had something that was maybe more adept or tactically focused, the type of effect you might be able to have. So that's really kind of led us to a second experiment. And that second experiment was really looking at this idea of popularity versus preference. And so the idea is, can we trust the

information that we see in our newsfeed? So the top five things, it is what is the relationship between a post or somebody news stories popularity and its preference?

Tim Weninger:

So these are things that appear in our newsfeed. Are they correlated with the things that people say they want to see? That's the question we wanted to ask. And basically, that boils down to two social voting systems like on Facebook and Twitter: do they work? And so what we ended up doing is we created a program called is an online game, essentially, that was an experiment called "Guess the Karma." And Guess the Karma was a social experiment.

Tim Weninger:

And what it did is that it asked users, which image. So this one was posted to either Imager or Reddit or Facebook or whichever. You're looking at a Reddit example now, which image was more popular? The one on the left, or the one on the right? And they asked users to guess which one was more popular, which one got more votes or more likes. And what I want you guys to do is to take a moment. Soojin, can you pop up the poll? Which do you think got more likes?

Tim Weninger:

The dog or the cat? I'm seeing right now about 40 votes. I see about 50 people in the channel. Yeah, so it looks like we're converging around about 78%, now 80% for the dog, which is great. Let's go in the poll Soojin. So 80 to 20 was the dog picture and you all are very adept communicators because it turns out that I guessed the cat, and I was wrong. The dog picture actually got more votes.

Tim Weninger:

So we would show this and it would be one of 10 experimental kind of tests that we would look at across different platforms. We could do it lots of different ways. We could say, which image do you like? Which is more popular? The one on the left or the one on the right? Or we could say, Michigan/Notre Dame, right. And the idea here is this is a proper social media rating experiment.

Tim Weninger:

It's the proper experiment, a scientific experiment that looks at... What we've ended up doing is looking at do the social rating systems work? Do the things that Facebook, and Reddit, and Twitter surface become popular, do they match what we say in a scientific setting is the most popular thing? And so we did this, and the cool thing about online games is that people will play them for free. And so we got about 100,000 people who play this game and give us their opinions, which is kind of cool.

Tim Weninger:

And what we ended up doing there then is we said, well, how well do people do with this game? Of course, in this particular case, random guessing, if you just guess left or every time or if you just close your eyes and guess randomly, random guessing is 50% accuracy. That is pretty much the worst you could do. And of course, 100% means that if social rating systems are an accurate reflection of what we prefer to see, then we will be close to 100%.

Tim Weninger:

So how will the people actually do? Well, about 52%. Some people did really well, you all did really well in this one question. Some people did really poorly. I've played this a few times and I went back and forth between 30 and 70%. But the bottom line here is that there's almost no relationship between what people want to see and what they actually see on social media.

Tim Weninger:

Now, that might be kind of a controversial statement, but so far I'm not seeing any questions in the question bar. So please take some time to ask any questions you might have. I'm at kind of a break in my talk now. It's usually the spot when I'm giving a live talk, I say any questions people have raised their hand. So Michael asks, why is this the case?

Tim Weninger:

Why is this the case? So this is an interesting question, why? If we knew that exactly, then we would have, I think, much better social media rating systems. But I think the biggest reason is because the early votes matter. And so what you see on your Facebook post is, other people have already curated it. They have already looked at it, and evaluated it and liked it. And so by the time it gets to you, or in most cases, by the time most people see it, it's already been endorsed by a bunch of people.

Tim Weninger:

If it wasn't endorsed, then no one would see it. So these early votes matters. So there's this kind of what's called path dependency that's built into the system. And then if you look up this idea of path dependency, you'll see they kind of corrupt the downstream effects of user perception and popularity. So Justin asks most of the popular content is popular because of kind of groupthink. Yes, I think that's a good way of saying it, groupthink.

Tim Weninger:

And really this idea of past dependency, which is similar to groupthink, is a big contributing factor in this outcome. And there's a lot of things you can look up this idea of this music lab experiment, it was done by sociologists at Princeton. And what they ended up doing is that, it turned out if a music, if a track some artists and some song was rated number one, versus rated number 50 on the Billboard, in their experiment on the chart, people ...

Tim Weninger:

It doesn't matter that it's the same song but if it was rated number one, people liked it more than if it was rated number 50, even though it's the exact same track. So this idea of ranking and past dependency has a big effect over what we feel is popular. All right, now, these are great. Please keep asking questions, I'm going to have Soojin take some of the ones down. And if I can see them, I will continue to answer them as I can.

Tim Weninger:

So now my third experiment that I wanted to share with you all is about the spread of misinformation. And the bad news is that it's kind of our fault, and I'll tell you what I mean by that here in a little bit. So we were interested in learning more about how humans, just regular well meaning users interacted with these voting patterns, with these voting platforms. And we cared about the voting patterns.

Tim Weninger:

So what we did is we created a plugin that watched people's browsing behavior on Twitter, YouTube, Reddit, and Facebook. We enrolled 309 users from across the world and they basically capture their interactions with the platform. And in total, we received just under two million clicks and votes and different things. The first result that we found is that most people don't click on anything at all.

Tim Weninger:

They go to Facebook, and they scroll, and they read headlines. In fact, I actually remember if you can look at my picture, I'm going to pantomime a little bit. I was watching my wife on the couch about two weeks ago, and she was scrolling. She was doing this activity, right? Where you scroll the phone. And I asked her question, and she looked at me, and she kept scrolling.

Tim Weninger:

She just kept doing this, which is interesting, and I think that she's not the only one who does that. There's some kind of tactile motion that we just like to scroll our phones. As a result, most people don't click on anything. Now I'm not a social psychologist, but someone should study that in more depth. Now because most of us don't click on anything, most people don't actually vote.

Tim Weninger:

Most things go unliked and unretweeted which is fine, but I think the most interesting results of this analysis are captured in this graph. And you can look at this graph over for 15 minutes and not understand it, so I'm going to give you the punchline. The punchline is that 74% of votes occurred- vote is they up vote, or like or share, or retweet, some kind of endorsement- occurred without the user ever viewing the post.

Tim Weninger:

So they look at the headline, I assume, and then without looking at clicking on the thing or reading it, they like it, or they retweeted. And that was 74% in Twitter, it's 73.7% on Reddit, and it's like 92% on Facebook. And then we kind of wonder why fake news is spread. We don't. Our votes matter because they go into the system as endorsement, but we don't read the things that we are voting on. And that to me is a bit of a problem.

Tim Weninger:

We also looked at the visibility bias. It turns out that 7% of all clicks, votes or, you click on the link or whatever, 7% went to the top post. And then it declines in what's called a power law fashion to 3%, 1.5%, 0.5% as it goes on down. And then you can see, I'm going to point ... Where's my pointer at? I'm going to point right here, you see how it kind of goes up at the end. At the end of the page, it kind of goes down, and then it moves back up a little bit.

Tim Weninger:

It turns out that some people they scroll to the bottom of the page and they surf backwards. I don't understand that myself. But when I give this talk, someone will raise their hand says yes, I do that, which is interesting I think. Some people scroll to the bottom, and then they scroll up. They browse in reverse which is I think is interesting. Gravity research on means, Ariana asked.

Tim Weninger:

Yes we do I will get to that shortly. That's very good question. It's the most exciting new stuff I'm working on me. So what now? I am going to say some controversial things and then give my reason behind them. So I want to present to you Tim's incomplete list of things that won't help fix these problems. All right, so first thing that won't help in my opinion, is fact checking. I'm sorry to say.

Tim Weninger:

Fact checking is wonderful. It works great in certain cases, but it turns out that the news spreads faster than fact checking to keep up with it. And so, the person who wrote Gulliver's Travels, his name is Jonathan Swift, back in the 1700's. He famously said that false lies and the truth come limping after, right? And you can fact check something, but the damage is already done.

Tim Weninger:

And there's been lots of research out of other labs throughout America that say that fact checking has limited use and limited effectiveness. Because if you just go and kind of chase falsehoods, you'll never get ahead of it. So in my opinion, fact checking has limited use in modern social media where things just spread so quickly.

Tim Weninger:

Censorship has mixed effects. Interestingly, there was a study done by Facebook, I was involved in the study, but what it did is that they actually took posts. Recently, there was a tweet, for example, by President Trump that was fact checked, and censored. It basically said, please, check this fact check, this post before viewing it. And that's the type of censorship. Now the question is does that censorship work?

Tim Weninger:

And we've done experiments on this, but it turns out that if you ... Facebook did something like this, they said not fact check this, but it was disputed. And so what it does is it drew a red square around the post, and it said disputed on it. And then they showed this to about 10,000 people as an experiment. And in that experiment, the result was that people who were one of those 10,000, they spread fake news more than the control group, the people who did not see the censored disputed post.

Tim Weninger:

And the reason is interesting, it turns out that people who see things that say this is disputed or false or fact checked or something, they assume that a post that is not labeled as false or censored in some way or disputed, it must be true. So the unlabeled posts must be true, when really they just haven't been fact checked. And this goes back to my earlier point to that fact checking is too slow.

Tim Weninger:

And so what humans were doing, other people were doing that they were actually they're giving up, they're advocating their higher order thinking skills to the algorithm and hopes that Twitter, or Facebook, or Reddit would do the hard work for them. And so contrary to my initial feelings, turns out the censorship has limited effect. And then shaming.

Tim Weninger:

Shaming doesn't work. If you yell at somebody on Facebook, they will not change their mind. No one has ever gotten to an argument on Facebook and then at the end of that argument, they had changed their mind. So shaming doesn't work. Now what is USAID and Notre Dame doing to fix things? So I say these are the things that won't work, what are we doing to fix things? And so this is on to the question earlier about means.

Tim Weninger:

So we're actually performing a program called advancing media literacy for new digital arrivals. And we're focusing on Indonesia. And the idea here is actually pretty simple. It's three tasks. First is identifying vectors of misinformation in the local context, in this case, Indonesia. We're working with local partners, fact checkers, or an organization on the ground with the USAID Indonesian Mission.

Tim Weninger:

We are adapting media literacy content that we sometimes teach in high schools around the world to social media. So rather than sit down and listen to a teacher lecture for an hour, we're going to make 20, 30 one minute little videos, encouraging people to think before they share or go to the source, or don't be duped. Except for those are alliterations in English. We have to adapt that to the Indonesian language.

Tim Weninger:

And then we take those quick media lessons and we deploy them on social media. So we share them on Twitter, and on WhatsApp, and on Facebook, get them in front of people, especially those who share misinformation the most. And then we measure the effectiveness to see do people actually change the behavior, do they share misinformation less. So we focus recently on the presidential election that happened last January.

Tim Weninger:

And in Indonesia, there's a lot of really interesting things. A lot of communication happens in picture form, what you might call meme, right? So here's some ... This is President Joko Widodo who won the election. And then the challenger who lost the election is different memes that show images of each of them in different contexts. And these are kind of funny contexts, but one thing that we kind of see is simply the more insidious things that people are.

Tim Weninger:

This is on the right here says, don't let this happen. So this is the challenger and we don't want communism to invade. Not particularly terrible. We recognize this to be fake. And this year is Joko Widodo, the winner with infinity gauntlet and disappearing his enemies. We also see certain gestures that are superimposed in all [inaudible 00:53:02]. So in this case, we see a celebrity here who has ... And someone has altered onto the image that says that this person supports, in this case number two on the ballot, which is the challenger.

Tim Weninger:

And so we can learn a lot actually about how people alter images, about what they're interested in and what they're afraid of, about how they alter images. We can see here that here's an image altered that inserted the hammer and sickle onto the carpet of a political party's prayer time. So what this is doing is

taking these as examples, creating social media literacy content, sharing it. We want to redirect people who are engaging with this and so this is called, we redirect them to, literasimediasocial.id, which you're welcome to go to at your leisure.

Tim Weninger:

And the idea is that they see the content, and this is what the example looks like. And then they change the behavior. Now, does it work? Well, sort of. It's no panacea, but I'll talk you through some of the results we have. But before I do that, I want to say that we have, just in the last few months, that 20 million impressions, which means 20 million people have seen our content. About just under 200,000 people have actually engaged and viewed our lessons.

Tim Weninger:

And then we also have about 34,000 weekly hacking attempts on our server, just as a small aside. And now of course, we also asked people before and after we call them on the phone and ask them basically, their propensity to identify misinformation. And so people who enrolled in our army diversity campaigns, were actually twice as likely to identify misinformation news headlines versus the people who did not see our content, which to me is a huge impact, a huge effect that the media literacy content is having an impact.

Tim Weninger:

So with that I'm running a little bit low on time. I have about two minutes left, I think. So I do want to thank my team and give special thanks to USAID Indonesia Mission for helping sponsor some of those research. The people you see here on the screen are the actual rock stars who do the actual math and research studying this misinformation. But with that, I want to thank you for your attention and take any questions that you have.

Tim Weninger:

I think Soojin was actually taking notes as I was speaking.

Justin Prudhomme:

Soojin, do you want me to read-

Tim Weninger:

Justin I'm going to turn it over to you.

Justin Prudhomme:

Yeah, so that was great. Thanks so much for that presentation. Unsurprisingly, we got a bunch of questions. So I'm going to ... There's about, I think, six or seven. I'm just going to read out one or two of them and then if you can just answer but I think keep them brief so we can try get to as many as possible. So question one, what's the effects of past dependency on elections?

Justin Prudhomme:

For example, announcing election results as they come in, does that have an effect on how people might vote several hours later?

Tim Weninger:

That is exactly right. That is a perfect example of path dependency. Even another example is announcing poll results. So just announcing the results of surveys. I'm not saying it has a big effect, but that is an example of path dependency is that I will like who my neighbor likes, or who my friends like, or who the person that I respect, if they give an endorsement, that's my endorsements for a thing. That's path dependency.

Tim Weninger:

Now on the ballot, that's why you draw randomly for the order on the balance, 1234. And so that is exactly path dependency. That's also why media in America, there's an agreement amongst the American media that we don't announce the results of states until all of the votes in that state are counted, or the polls are closed.

Justin Prudhomme:

Okay. The second question, have you seen any work done on the impact of social media and the social media culture/ethos on social identity theory?

Tim Weninger:

So I'm going to use my main punch, that's a great question, is that I'm a computer scientist. And I have seen some studies but I don't know them all enough to comment in any kind of authority. So I'm going to maybe do the prudent thing and say, their people are researching this. It is actually a really old question about media and social identity.

Tim Weninger:

I mean, a dozen different studies come to mind, but I would like to talk maybe one on one with whoever asked that question. Maybe send me an email and I'll get back to you on some of those studies. But yeah, it's a very rich area of research right now, of which I'm not an expert.

Justin Prudhomme:

This is a communication professional workshop. Everyone here appreciate the good punt. Third question is, is there a relationship between users voting or liking or retweeting posts without reading? And from the counter read, the user already follows or like? I think you kind of answered it a little bit in your answer about the past dependency where an endorsement from someone you trust is a way of not engaging your thinking skills and just trusting someone else to do it for you.

Tim Weninger:

Right. So there's actually not much. So this is a good question, one I haven't thought of but I know the answer. And that is that there is no relationship between users voting and liking if it's been endorsed by someone that they trust. And the reason I know that is because what you're thinking about is on Facebook or on Twitter, where you can see that somebody likes or retweeted something.

Tim Weninger:

You can see that my neighbor, or my mom, or my pastor retweeted something. But on Reddit, you cannot see. All you see is number of votes. So actually, sometimes you don't even see the number of likes, you just see that it's ranked number four, but you don't see who endorsed it at all. And we find

exactly well within a percentage point, the same results on Reddit as we see on Twitter. So I'm going to say that there is not much of a relationship in that case. It's bad either way.

Justin Prudhomme:

Does censorship only push us to other more secretive platforms?

Tim Weninger:

There was a study done in Saudi Arabia that was looking at what happens when the government there censored outspoken critics. And it found that there was the backfire effect, what some people like to call the Streisand effect actually happens, which is if you censor it, they will only get more press and more attention. And so there are the dissidents that were censored actually received more followers and more attention after the censorship activity than if no censorship has happened at all.

Tim Weninger:

So I would say that ... Now your question is do they go to different platform? There is some ... I have actually on my desk right now, an experiment that's looking at exactly that. And as I read it, there is a little bit but it dies out pretty quickly. So I'm looking at a bunch of after a censorship effect, it spikes up for a day or two and then people go back to Twitter, or Reddit, or whatever. So I'll have to press...

Justin Prudhomme:

And so you'll say, just to recap, you're saying that the effect of pushing into other platforms is not as pronounced as maybe a backlash effect?

Tim Weninger:

Yes, I would say that censorship certainly has a backlash effect, and then the pushing to other platforms, it does happen, but it doesn't stick. Yeah, that's a good question.

Justin Prudhomme:

We have a question here about ... So we see that some of these altered images that you displayed on your presentation about meme, we see that some of these altered images are more obvious than others. But what about defects and video calls?

Tim Weninger:

This is a fantastic question. I am actually one of the prime program leaders for a dropper program called ... It used to be called metaphor and now it's called semaphore. And that is media forensics and semantic forensics. And that is exactly trying to figure out are these media images faked or not? And if they're fake, how are they faked?

Tim Weninger:

Now, deep fakes currently are pretty easy to detect. Not only that is that we can detect them and we can say that it came from, if we have a bunch of examples, it came from this lab in Thailand, or this lab in China, or Russia, or Maryland. Because just like a painter, you can tell if a painting is authentic by looking at the brushstrokes of how the artists contributes. We can look at the brushstrokes essentially of a deep fake or a fake meme to look at who's doing this type of attack. So right now, we're winning that technology battle, but I don't know for how long.

Justin Prudhomme:

Okay. And then the final question ... Well, I think I can add one more. But when people find up to play, in one of the case studies you referred to earlier, the games popular left, right, did you collect any demographic data in terms of age, gender, geolocation, or education level?

Tim Weninger:

So, there are two experiments where we asked people to kind of sign up. One was the tracking where we were actually following them around social media. And that particular case we asked nothing of them. I actually don't know, if someone hacked my computer, they would get nothing, because I didn't want to have that information at all.

Tim Weninger:

I don't even know what the usernames are, because that's just sensitive information. What you browse on social media is sensitive. The game however, was a game people played, we asked them at the end, five questions not about their gender or age, but we ask them about their social media use. Actually an interesting anecdote is that people who say that they use social media every day, that they submit posts and that they like frequently, what you might call power social media users, power users.

Tim Weninger:

They were actually slightly worse at the game than people who just are regular browsers of social media. But I would also say that the location of most of these, the agent location of most of these gamers were probably equal to the average social media user. This study got viral on Twitter, and it was widely seen. So I would say it's pretty across the board, but I don't have that exactly.

Justin Prudhomme:

Okay. Well, great. I think that's all the questions. Tim this has been great, really excellent presentation. I think as the questions show a ton of interest in the topic, super timely. We're going to move on, but you have any last thoughts you want to add?

Tim Weninger:

I do want to say again, reiterate my thanks to USAID for allowing me to come and share my research with you all. If anyone else has any questions, especially those who have questions you didn't want to ask publicly in the chat, send me an email, just to Google. It's timweninger@indy.edu. I'm happy to chat with you at length at your leisure. Thank you.

Justin Prudhomme:

Great, thanks so much Tim. And that does it from the first day of this three day workshop. I just want to remind everyone, we're doing this again tomorrow and the next day then. Can't promise it's going to be of the same caliber as Tim but we're doing our best and I promise you it will be interesting.

Justin Prudhomme:

I do want to just encourage everyone to fill out the questions poll before you leave today just so it gives us insight into better refining it for the next two days. And with that, I'll hand it back over to Soojin.