

# Supplementary Materials and Methods: Testing The Effect of Information on Discerning the Veracity of News in Real-Time

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## A Partisan Lean of The Source

We determine the partisan lean of the low-quality domains by asking three independent coders to determine the partisan perspective of the website (conservative, liberal, and unclear). Coders were asked to use the headlines, the content of its articles, as well as the websites domain and about page to make this determination, and to classify websites that had a clear partisan affiliation based on this information accordingly. Websites were not classified as liberal or conservative unless at least 50% of their content appeared to have a partisan or political nature. If websites did not meet this threshold, they were classified as unclear. If the coders did not unanimously agree a fourth coder was asked to evaluate the website, and the majority decision was used (split cases were included as active). There was over 75% level agreement among the coders and we can report a .705 Fleiss' Kappa. In total, six domains were placed in the liberal low-quality news stream, sixty-one domains were placed in the conservative low-quality news stream, and fifty-eight domains were placed in the unclear low-quality news stream. The prevalence of conservative and unclear low-quality news streams is in line with previous research that provides evidence for the asymmetric production of false/misleading news (Guess, Nyhan, and Reifler 2020).

## B Pre-Registered Hypotheses

### B.1 Text Effect

**H1.1** Respondents who are only given the headline and lede in standardized text of an article to evaluate are less likely to match the assessment of fact-checkers than those who are given the whole article in standardized text to evaluate.

**H1.2** Respondents who are only given the headline and lede of an article to evaluate (with source information) are less likely to match the assessment of fact-checkers than those who are given the whole article to evaluate (with source information).

## **B.2 Source Information**

**H2.1** Respondents who evaluate the full standardized text from articles known for publishing fake news will be more likely to rate this story as true than respondents who evaluate the full article from their website (with the source information).

**H2.2** Respondents who evaluate the full standardized text of a mainstream news article will be less likely to rate this story as true than respondents who evaluate the full article from their website (with the source information).

**H2.3** Respondents who evaluate the headline and lede in standardized text from an article known for publishing fake news will be more likely to rate this story as true than respondents who evaluate the headline and lede from their website (with the source information).

**H2.4** Respondents who evaluate the headline and lede in standardized text from a mainstream news article will be less likely to rate this story as true than respondents who evaluate the headline and lede from their website (with the source information).

### **B.3 External Information**

**H3.1** Individuals who are asked to search for evidence to help them evaluate a true news article that is rated true by professional fact checkers will be more likely to rate this story as true (i.e., correctly answer the assessment question) than respondents who are not asked to search for evidence to help them evaluate that same true news article.

**H3.2** Individuals who are asked to search for evidence to help them evaluate a fake news article are less likely to match the assessment of fact-checkers than those who are not asked to search for evidence to help them evaluate that same fake news article.

**H3.3** Individuals who are asked to search for evidence to help them evaluate a fake news article that is rated misleading/false by professional fact checkers will be more likely to rate this story as true (i.e., incorrectly answer the assessment question) than respondents who are not asked to search for evidence to help them evaluate that same fake news article.

## **C Hypotheses Not Tested in Paper: Ideologically Congruent Sources**

It is also likely that news consumers also judge ideologically congruent news sources as more credible than ideologically incongruent news sources (Kahan et al. 2010; Metzger, Hartsell, and Flanagin 2020). Some work has even found that news consumers may judge biased but ideologically congruent sources as more credible than neutral sources (Vallone, Ross, and Lepper 1985; Clark III and Maass 1988). We test if providing access to source information increases the likelihood that a respondent sharing the ideological lean of a news source rates that news article as true (H2.5; H2.6) and if providing access to source information decreases the likelihood that a respondent sharing the opposite ideological lean of a news source rates that news article as true (H2.7; H2.8).

## **D Hypotheses Not Tested in Paper: Heterogenous Effects of Searching for Information**

By collecting Google Search headlines we also test if the quality of external information one receives when searching for information affects an individual's ability to correctly rate fake news as such (H1.4). Given that individuals engage with external information differently (Britt et al. 2019), we also test if those with higher or lower levels of digital literacy, a characteristic of interest (Guess and Munger 2020), discern the veracity of news differently when they are confronted with external information. Previous work would predict that individuals with a high level of digital literacy are unaffected by low quality external information (H1.5), whereas individuals with a low level of digital literacy are less likely to match the assessment of fact-checkers when asked to access external information (H1.6).

## **E Examples of Combinations of Information:**

- E.1 Just the headline and lede of the article in standardized text format without source information**

Figure 1

**Coronavirus may have originated in lab linked to China's biowarfare program**



E.2 Just the headline and lede of the article in standardized text format with source information

Figure 2

**The Washington Times**  
*Reliable Reporting. The Right Opinion.*

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## Coronavirus may have originated in lab linked to China's bio warfare program



Scientists say evidence strongly suggests that the novel coronavirus which caused the epidemic in Wuhan was being studied in a lab linked to China's bio warfare program.

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### E.3 The full text of an article in standardized text format

Figure 3

## **Coronavirus may have originated in lab linked to China's biowarfare program**

The deadly animal-borne coronavirus spreading globally may have originated in a laboratory in the city of Wuhan linked to China's covert biological weapons program, said an Israeli biological warfare analyst.

Radio Free Asia last week rebroadcast a Wuhan television report from 2015 showing China's most advanced virus research laboratory, known the Wuhan Institute of Virology. The laboratory is the only declared site in China capable of working with deadly viruses.

Dany Shoham, a former Israeli military intelligence officer who has studied Chinese biological warfare, said the institute is linked to Beijing's covert bio-weapons program.

"Certain laboratories in the institute have probably been engaged, in terms of research and development, in Chinese [biological weapons], at least collaterally, yet not as a principal facility of the Chinese BW alignment," Mr. Shoham told The Washington Times.

Work on biological weapons is conducted as part of dual civilian-military research and is "definitely covert," he said in an email.

Mr. Shoham holds a doctorate in medical microbiology. From 1970 to 1991, he was a senior analyst with Israeli military intelligence for biological and chemical warfare in the Middle East and worldwide. He held the rank of lieutenant colonel.

China has denied having any offensive biological weapons, but a State Department report last year revealed suspicions of covert biological warfare work.

A Chinese Embassy spokesman did not return an email seeking comment.

## F Article Selection Process

### F.1 Mainstream Sources

#### Mainstream Liberal News Sites:

- Yahoo News
- The New York Times
- The Huffington Post
- NBC News
- Politico
- CNN
- The Washington Post
- The Guardian
- USA Today
- CBS News

#### Mainstream Conservative News Sites:<sup>1</sup>

- Fox News
- The New York Post
- Real Clear Politics
- IJR
- The Washington Times
- CNBC
- The Wall Street Journal
- Newsmax
- Townhall

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<sup>1</sup>Note that the conservative news group contains only nine websites. The Drudge report did not have a Facebook page, and therefore could not be followed on CrowdTangle. Since there were only ten conservative leaning websites in the top 100 list, we used the only nine that had Facebook pages.

## F.2 Low-Quality Sources

Table 1: Low-Quality Conservative Sources

Number	Domain
1	<a href="http://dailywire.com">dailywire.com</a>
2	<a href="http://dailycaller.com">dailycaller.com</a>
3	<a href="http://express.co.uk">express.co.uk</a>
4	<a href="http://redstatewatcher.com">redstatewatcher.com</a>
5	<a href="http://thepoliticalinsider.com">thepoliticalinsider.com</a>
6	<a href="http://thefederalistpapers.org">thefederalistpapers.org</a>
7	<a href="http://rightwingnews.com">rightwingnews.com</a>
8	<a href="http://madworldnews.com">madworldnews.com</a>
9	<a href="http://yournewswire.com">yournewswire.com</a>
10	<a href="http://uschronicle.com">uschronicle.com</a>
11	<a href="http://louderwithcrowder.com">louderwithcrowder.com</a>
12	<a href="http://100percentfedup.com">100percentfedup.com</a>
13	<a href="http://angrypatriotmovement.com">angrypatriotmovement.com</a>
14	<a href="http://iloveymyfreedom.org">iloveymyfreedom.org</a>
15	<a href="http://clashdaily.com">clashdaily.com</a>
16	<a href="http://joeformerica.com">joeformerica.com</a>
17	<a href="http://conservativedailypost.com">conservativedailypost.com</a>
18	<a href="http://americasfreedomfighters.com">americasfreedomfighters.com</a>
19	<a href="http://babylonbee.com">babylonbee.com</a>
20	<a href="http://teaparty.org">teaparty.org</a>
21	<a href="http://judicialwatch.org">judicialwatch.org</a>
22	<a href="http://conservativepost.com">conservativepost.com</a>
23	<a href="http://thegatewaypundit.com">thegatewaypundit.com</a>
24	<a href="http://infowars.com">infowars.com</a>
25	<a href="http://eaglerising.com">eaglerising.com</a>
26	<a href="http://en-volve.com">en-volve.com</a>
27	<a href="http://wnd.com">wnd.com</a>
28	<a href="http://bb4sp.com">bb4sp.com</a>
29	<a href="http://concealednation.org">concealednation.org</a>
30	<a href="http://theconservativetreehouse.com">theconservativetreehouse.com</a>
31	<a href="http://dcclothesline.com">dcclothesline.com</a>
32	<a href="http://conservativefiringline.com">conservativefiringline.com</a>
33	<a href="http://frontpagemag.com">frontpagemag.com</a>
34	<a href="http://endtimeheadlines.org">endtimeheadlines.org</a>
35	<a href="http://downtrend.com">downtrend.com</a>
36	<a href="http://nowtheendbegins.com">nowtheendbegins.com</a>
37	<a href="http://wearechange.org">wearechange.org</a>
38	<a href="http://neonnettle.com">neonnettle.com</a>
39	<a href="http://powderedwigsociety.com">powderedwigsociety.com</a>
40	<a href="http://americanjournalreview.com">americanjournalreview.com</a>
41	<a href="http://thehornnews.com">thehornnews.com</a>
42	<a href="http://barenakedislam.com">barenakedislam.com</a>
43	<a href="http://rickwells.us">rickwells.us</a>

Table 2: Low-Quality Conservative Sources (Continued)

Number	Domain
44	ahtribune.com
45	ipatriot.com
46	afa.net
47	eutimes.net
48	thepeoplescube.com
49	stateofthenation2012.com
50	fellowshipoftheminds.com
51	trunews.com
52	freerepublic.com
53	mediamass.net
54	endoftheamericandream.com
55	2ndvote.com
56	iotwreport.com
57	puppetstringnews.com
58	dailyheadlines.net
59	thenationalpatriot.com
60	rogue-nation3.com
61	veteransfordonaldtrump.com

Table 3: Low-Quality Liberal Sources

Number	Domain
1	occupydemocrats.com
2	bipartisanreport.com
3	palmerreport.com
4	crooksandliars.com
5	democraticunderground.com
6	halfwaypost.com

Table 4: Low-Quality Unclear Sources

Number	Domain
1	ijr.com
2	anonhq.com
3	inquisitr.com
4	worldtruth.tv
5	collective-evolution.com
6	tribunist.com
7	naturalnews.com
8	worldnewsdailyreport.com
9	trueactivist.com
10	firstpost.com
11	zerohedge.com
12	disclose.tv
13	dailysnark.com
14	postcard.news
15	higherperspectives.com
16	dailypost.ng
17	davidwolfe.com
18	noticias-frescas.com
19	healthnutnews.com
20	beforeitsnews.com
21	truthuncensored.net
22	awarenessact.com
23	duffelblog.com
24	nation.com.pk
25	actualidadpanamericana.com
26	themindunleashed.com
27	huzlers.com
28	dennismichaelynych.com
29	rearfront.com
30	actualite.co
31	activistpost.com
32	newsmagazine.com
33	12minutos.com
34	dailyoccupation.com
35	newsrescue.com
36	the-postillon.com
37	burrardstreetjournal.com
38	empirenews.net
39	medicalkidnap.com
40	friendsofsyria.wordpress.com
41	realnewsrightnow.com
42	adobochronicles.com
43	anonews.co

Table 5: Low-Quality Unclear Sources (Continued)

Number	Domain
44	thenationalmarijuananeews.com
45	en.mediamass.net
46	daily-sun.com
47	whatdoesitmean.com
48	therooster.com
49	thelastamericanvagabond.com
50	stillnessinthestorm.com
51	independentminute.com
52	newsbiscuit.com
53	attitude.co.uk
54	onlysimchas.com
55	dailyfeed.news
56	newsjustforyou1.blogspot.com
57	thebreakingnews.co
58	usanewstoday.com



## G Articles Evaluated:

### G.1 Study 1: Testing The Marginal Effect of External Information

Table 6: Headlines for Articles Chosen from the Low Quality Liberal News Stream in Study I

	Date	Headline	Modal Fact Checker Rating	Topic	Lean of Article
1	11/20/19	Lt. Col. Vindman: ‘This Is America...Here, Right Matters’	True	Political/Economy	Liberal
2	11/21/19	Sondland’s testimony directly implicates Trump, Pence and Pompeo in Ukraine quid pro quo plot	True	Political/Economy	Liberal
3	12/3/19	The sealed “Indictment A” that Donald Trump needs to worry about more than ever	False/Misleading	Political/Economy	Liberal
4	12/4/19	Devin Nunes Shamelessly Lies When Hannity Asks About Lev Parnas	False/Misleading	Political/Economy	Liberal
5	12/5/19	Trump caught by reporters patting himself on back for insulting Justin Trudeau	True	Political/Economy	Liberal
6	12/9/19	Ex-Intel Slam Trump For Sucking Up To Saudis After Navy Shooting	True	Political/Economy	Liberal
7	12/10/19	Nancy Pelosi knows something we don’t	False/Misleading	Political/Economy	Neutral
8	12/11/19	Tucker Carlson’s White Power Hour Guest: AOC’s District Is The ‘Least American’	True	Political/Economy	Liberal
9	1/6/20	Schiff Hammers President & GOP Over Impeachment Trial Obstruction	True	Political/Economy	Liberal
10	1/7/20	Everything is falling apart for Donald Trump in real time	True	Political/Economy	Liberal

Table 7: Headlines for Articles Chosen from the Low Quality Conservative News Stream in Study I

	Date	Headline	Modal Fact Checker Rating	Topic	Lean of Article
1	11/20/19	No Shots Fired! Citizen with a Gun Ends Gunman’s Attack at Oklahoma Walmart	False/Misleading	Political/Economy	Conservative
2	11/21/19	Indictment Against Head Of Burisma Reveals ‘Hunter Biden Was Receiving Payments From Money Raised Through Criminal Means, Siphoned, Laundered From Ukraine’	False/Misleading	Political/Economy	Conservative
3	12/3/19	Donald Trump SLAMS Corbyn’s NHS lies ‘We want nothing to do with it!’	False/Misleading	Political/Economy	Neutral
4	12/4/19	In 2018, 86% of Those Arrested for Violent Crime in Los Angeles Were Non-White (5% Were White): the City Is 28% White	False/Misleading	Political/Economy	Conservative
5	12/5/19	DING! DING! DING! First Muslim woman elected to Pennsylvania House of Representatives has been ARRESTED for stealing \$500,000 from a charity	True	Political/Economy	Conservative
6	12/9/19	NEVER TRUMPER RICK WILSON SUGGESTS PUTTING ANTI-VAXXERS IN “RE-EDUCATION CAMPS”	True	Political/Economy	Conservative
7	12/10/19	Breaking: Ukrainian Official Reveals Six Criminal Cases Opened In Ukraine Involving The Bidens	False/Misleading	Political/Economy	Conservative
8	12/11/19	Ukraine Advisor Disputes Key Point In Impeachment Testimony — Is This Bad News For Democrats?	False/Misleading	Political/Economy	Conservative
9	1/6/20	NEARLY 200 PEOPLE ARRESTED ACROSS AUSTRALIA FOR DELIBERATELY STARTING BUSHFIRES	False/Misleading	Science	Conservative
10	1/7/20	Iran stampede: ‘35 dead’ and dozens injured after huge crush at Qassem Soleimani funeral	True	Political/Economy	Neutral

Table 8: Headlines for Articles Chosen from the Mainstream Conservative News Stream in Study I

	Date	Headline	Modal Fact Checker Rating	Topic	Lean of Article
1	11/20/19	Key impeachment witness dodges GOP questions to protect whistleblower	True	Political/Economy	Neutral
2	11/21/19	Smollet Claims He Suffered 'Extreme Emotional Distress' in Malicious Prosecution Lawsuit Against Chicago	True	Human Interest	Neutral
3	12/3/19	Marine veteran turned congressional candidate calls Kaepernick a 'national disgrace'	True	Political/Economy	Conservative
4	12/4/19	Devin Nunes slaps CNN with \$435 million defamation lawsuit	True	Political/Economy	Neutral
5	12/5/19	Angry Melania Slams Impeachment Witness for Joking About Son	True	Political/Economy	Conservative
6	12/9/19	Walmart apologizes for sweater featuring Santa with cocaine	True	Human Interest	Neutral
7	12/10/19	Joe Biden Claims No One Told Him About Potential Conflict of Interest With Hunter's Job at Burisma	True	Political/Economy	Conservative
8	12/11/19	House Democrats announce articles of impeachment against Trump: Abuse of power, obstruction of Congress	True	Political/Economy	Neutral
9	1/6/20	Ricky Gervais blasts Hollywood figures as unprincipled, ignorant at Golden Globes	True	Human Interest	Neutral
10	1/7/20	Pelosi Says the House Will Vote on a Resolution to Limit Trump's Military Actions Regarding Iran	True	Political/Economy	Neutral

Table 9: Headlines for Articles Chosen from the Mainstream Liberal News Stream in Study I

	Date	Headline	Modal Fact Checker Rating	Topic	Lean of Article
1	11/20/19	Woman Saves Scorched Koala From Bushfire With Shirt Off Her Own Back	True	Science	Neutral
2	11/21/19	Almaas Elman, Somali-Canadian Activist, Is Shot Dead in Mogadishu	True	Political/Economy	Neutral
3	12/3/19	Duncan Hunter To Plead Guilty In Campaign Finance Case He Called 'Witch Hunt'	True	Political/Economy	Neutral
4	12/4/19	Kamala Harris Dropping Out Of Presidential Race	True	Political/Economy	Neutral
5	12/5/19	'He Showed Us Life': Japanese Doctor Who Brought Water to Afghans Is Killed	True	Human Interest	Neutral
6	12/9/19	Caroll Spinney, legendary 'Sesame Street' puppeteer of Big Bird, dies at 85	True	Human Interest	Neutral
7	12/10/19	Megan Rapinoe is Sports Illustrated's Sportsperson of the Year, only the fourth woman chosen alone	True	Human Interest	Neutral
8	12/11/19	Police Chief Tears Into Ted Cruz, McConnell For Caring More About NRA Than Gun Victims	True	Political/Economy	Neutral
9	1/6/20	Mike Pence Slammed After Falsely Linking Qassem Soleimani To 9/11	True	Political/Economy	Liberal
10	1/7/20	Pentagon Rules Out Striking Iranian Cultural Sites, Contradicting Trump	True	Political/Economy	Liberal

Table 10: Headlines for Articles Chosen from the Low Quality Unclear News Stream in Study I

	Date	Headline	Modal Fact Checker Rating	Topic	Lean of Article
1	11/20/19	Pounds lost doesn't mean FAT lost: You CAN lose up to 2 pounds of fat a month – but it takes consistency and patience	False/Misleading	Science	Neutral
2	11/21/19	Ukrainian MP Claims \$7.4 Billion Obama-Linked Laundering, Puts Biden Group Take At \$16.5 Million	False/Misleading	Political/Economy	Conservative
3	12/3/19	Americans Bought Enough Guns on Black Friday to Arm the Marine Corps – Yet Again!	True	Political/Economy	Unclear
4	12/4/19	Ukrainian Neo-Nazis Help Out at Hong Kong Riots, Pan-Democrats Defend Them	Could Not Determine	Political/Economy	Unclear
5	12/5/19	China Repeats US Must Reduce Tariffs For "Phase One" Trade Deal	True	Political/Economy	Neutral
5	12/9/19	Biden Denies Wrongdoing in Ukraine During Testy Interview	True	Political/Economy	Conservative
7	12/10/19	Stressed to the Max? Deep Sleep Can Rewire the Anxious Brain	True	Science	Neutral
8	12/11/19	Since Feeding the Homeless is Illegal, Activists Carry AR-15s to Give Out Food, Supplies	False/Misleading	Political/Economy	Conservative
9	1/6/20	Senate Republican Eyes Rule Change to Kick Start Trump Impeachment Trial	True	Political/Economy	Neutral
10	1/7/20	Iran Evaluating 13 Retaliation Scenarios To Inflict "Historic Nightmare" On US	True	Political/Economy	Conservative

## G.2 Study 2: Testing The Marginal Effect of Full Text And Source Information

Table 11: Headlines for Articles Chosen from the Low Quality Liberal News Stream in Study 2

	Date	Headline	Modal Fact Checker Rating	Topic	Lean of Article
1	1/8/20	Trump bewilders nation by tweeting “all is well” and “so far so good” after Iran’s missile strike	True	Political/Economy	Liberal
2	1/9/20	John Bolton Will Testify If Subpoenaed, So Why Aren’t House Dems Doing That?	No Mode	Political/Economy	Liberal
3	1/13/20	New Trump Approval Poll Released Confirms Massive 2020 Blue Wave	False/Misleading	Political/Economy	Liberal
4	1/14/20	Donald Trump’s GOP Senate allies have just been backed into a no-win corner	No Mode	Political/Economy	Liberal
5	1/15/20	Newly released texts from Giuliani collaborator appear to show them stalking Amb. Yovanovitch	True	Political/Economy	Liberal
6	1/21/20	Even C-SPAN Is Cut Off From Covering Senate Impeachment Trial	True	Political/Economy	Liberal
7	1/22/20	Schiff Opening Impeachment Trial Statement To Go Down In History	True	Political/Economy	Liberal
8	1/23/20	Donald Trump just screwed up and blew a gaping hole in his own impeachment trial strategy	No Mode	Political/Economy	Liberal
9	1/27/20	Damning potential John Bolton Ukraine impeachment testimony revealed in early leak of book draft	True	Political/Economy	Liberal
10	1/28/20	Joni Ernst Gives Away The Ballgame On Joe Biden	No Mode	Political/Economy	Liberal

Table 12: Headlines for Articles Chosen from the Low Quality Conservative News Stream in Study 2

	Date	Headline	Modal Fact Checker Rating	Topic	Lean of Article
1	1/8/20	Muslim Teen Accused Of Starting Aussie Grass Fire Laughs As He Leaves Court On Tuesday	False/Misleading	Science	Conservative
2	1/9/20	Third busiest abortion facility in Massachusetts could soon shut its doors	True	Political/Economy	Conservative
3	1/13/20	Why Are Volcanoes All Over The Globe Suddenly Shooting Giant Clouds Of Ash Miles Into The Air?	False/Misleading	Science	Neutral
4	1/14/20	Wisconsin Judge Orders Up to 209,000 Listings Purged from Voter Rolls — Finds 3 in Contempt, Orders Fines for Delay	True	Political/Economy	Conservative
5	1/15/20	Bloomberg Draws Paltry Crowd Of 45 At Heavily Advertised Rally	Could Not Determine	Political/Economy	Conservative
6	1/21/20	Pentagon bans Bible verses on dog tags, while Pres. Trump upholds right to pray in public schools	False/Misleading	Political/Economy	Conservative
7	1/22/20	LEAKED FRENCH INTERNAL INTELLIGENCE REPORT CLAIMS 150 NEIGHBORHOODS ‘HELD’ BY RADICAL ISLAMISTS	No Mode	Political/Economy	Conservative
8	1/23/20	Coronavirus outbreak: China seals off SECOND major city - 18m people on lockdown	True	Science	Neutral
9	1/27/20	Lawmakers Pushing to Make Michigan a 2nd Amendment Sanctuary STATE	True	Political/Economy	Conservative
10	1/28/20	Holy Moses! More Than 175,000 Tickets Requested To See President Trump In New Jersey — Supporters Line Up 48 Hours Early	False/Misleading	Political/Economy	Conservative

Table 13: Headlines for Articles Chosen from the Mainstream Conservative News Stream in Study I

	Date	Headline	Modal Fact Checker Rating	Topic	Lean of Article
1	1/8/20	Climate Change? Turns Out Two Dozen Arrested for Setting Australia's Fires	False/Misleading	Science	Conservative
2	1/9/20	Cardi B bashes Trump, says she's seeking Nigerian citizenship amid tensions with Iran	True	Political/Economy	Neutral
3	1/13/20	Bill Gates: My \$109 billion net worth shows the economy is not fair	True	Political/Economy	Neutral
4	1/14/20	Trump, first lady cheered at national championship game	True	Political/Economy	Neutral
5	1/15/20	President Trump Gets Thunderous Applause at Clemson and LSU National Championship Game	True	Political/Economy	Conservative
6	1/21/20	Virginia's Capitol flooded with gun rights activists for Second Amendment rally	True	Political/Economy	Conservative
7	1/22/20	CDC confirms first US case of coronavirus that has killed 9 in China	True	Science	Neutral
8	1/23/20	Three US firefighters killed in plane crash while battling wildfires in Australia	True	Science	Neutral
9	1/27/20	Coronavirus may have originated in lab linked to China's biowarfare program	No Mode	Science	Neutral
10	1/28/20	Dershowitz calls out House Dems in Trump's Senate impeachment trial after Bolton shock waves	True	Political/Economy	Conservative

Table 14: Headlines for Articles Chosen from the Mainstream Liberal News Stream in Study I

	Date	Headline	Modal Fact Checker Rating	Topic	Lean of Article
1	1/8/20	All is well,' Trump tweets after Iran targets U.S. forces in missile attack in Iraq	True	Political/Economy	Neutral
2	1/9/20	Ruth Bader Ginsburg says she is cancer-free	True	Political/Economy	Neutral
3	1/13/20	Serena Williams wins first title in 3 years — and donates prize money to Australia wildfire relief	True	Human Interest	Neutral
4	1/14/20	The first Obama-backed documentary receives an Oscar nomination	True	Human Interest	Neutral
5	1/15/20	More than 50 injured after Delta jet dumps fuel on L.A. schools during midair emergency	True	Human Interest	Neutral
6	1/21/20	Katie Sowers Is The First Female And Openly Gay Person To Coach In A Super Bowl	True	Human Interest	Neutral
7	1/22/20	Weather service issues alert for falling iguanas as temperatures drop in Florida	True	Science	Neutral
8	1/23/20	Half of Americans don't know 6m Jews were killed in Holocaust, survey says	True	Political/Economy	Neutral
9	1/27/20	Kobe Bryant's Daughter Gianna, 13, Dead Alongside Father in Calabasas Helicopter Crash	True	Human Interest	Neutral
10	1/28/20	'Today really hurts': Families, friends remember those who died in Kobe Bryant crash	True	Human Interest	Neutral

Table 15: Headlines for Articles Chosen from the Low Quality Unclear News Stream in Study I

	Date	Headline	Modal Fact Checker Rating	Topic	Lean of Article
1	1/8/20	Key Brain Region Smaller in Birth Control Pill User	True	Science	Neutral
2	1/9/20	The US Military Pollutes More 140 Countries Combined	True	Science	Liberal
3	1/13/20	Alaska man survives three weeks with little food and shelter	True	Human Interest	Neutral
4	1/14/20	Boeing Mocked Lion Air "Idiots" For Requesting Extra Training For 737 MAX	True	Human Interest	Unclear
5	1/15/20	300 Vultures Occupy Border Patrol Tower, Covering It With "Corrosive" Feces & Vomit	True	Human Interest	Neutral
6	1/21/20	PUNISHING ECONOMY: San Fran's Democrat tyrants double down on closed businesses, taxing landlords for leaving stores vacant	False/Misleading	Political/Economy	Conservative
7	1/22/20	Another Supposedly Authentic Photo Of A UFO & The Story Behind It	No Mode	Human Interest	Neutral
8	1/23/20	China Quarantines 3rd City As Wuhan Virus Spreads To Singapore	True	Science	Neutral
9	1/27/20	Nature Science Journal Warned About "Pathogens Escaping" Wuhan Level-4 Biosafety Lab (BSL-4) Before Coronavirus Outbreak	False/Misleading	Science	Unclear
10	1/28/20	Death Tolls Rises to 106 as 1,000 Americans Try to Evacuate From Coronavirus-Infected Wuhan	True	Science	Neutral



## H Model Results For Each Individual Hypothesis

Table 16: Measuring Effect of Additional Information on Matching the Fact-Checker's Evaluation

	<i>Dependent variable:</i>			
	(H1.1)	(H1.2)	(H3.1)	(H3.2)
Treatment (Full Text)	0.059*** (0.011)	0.090*** (0.011)		
Treatment (Search)			0.059** (0.021)	-0.015 (0.021)
Education	-0.001 (0.005)	0.006 (0.005)	-0.007 (0.009)	0.019* (0.009)
Age	-0.001 (0.0004)	-0.0003 (0.0004)	-0.003*** (0.001)	0.002** (0.001)
Gender (Male)	0.030** (0.011)	0.048*** (0.011)	0.034 (0.021)	-0.018 (0.021)
Income	0.009 (0.006)	0.001 (0.006)	-0.004 (0.012)	-0.006 (0.012)
Ideology	-0.009** (0.003)	-0.012*** (0.003)	0.018** (0.006)	-0.034*** (0.006)
Observations	2275	8910	8764	
R-squared	0.023	0.006	0.012	
Adj. R-squared	0.02	0.005	0.012	
F-Statistic	7.482***	7.599***	15.635***	

*Note:*

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001

Table 17: Measuring Effect of Additional Information on Rating an Article as True

	<i>Dependent variable:</i>				
	(H2.1)	(H2.2)	(H2.3)	(H2.4)	(H3.3)
Treatment (Source)	-0.071*** (0.015)	0.043** (0.013)	-0.063*** (0.015)	-0.018 (0.015)	
Treatment (Search)					0.072*** (0.014)
Education	-0.011 (0.007)	0.005 (0.006)	-0.008 (0.007)	0.010 (0.007)	0.021*** (0.006)
Age	0.0001 (0.0005)	0.0001 (0.0004)	-0.001* (0.001)	-0.001* (0.001)	-0.0002 (0.0004)
Gender (Male)	0.044** (0.015)	0.033* (0.014)	0.057*** (0.015)	0.035* (0.015)	0.035* (0.014)
Income	-0.004 (0.008)	0.006 (0.008)	0.007 (0.009)	-0.001 (0.009)	-0.002 (0.008)
Ideology	-0.017*** (0.004)	0.002 (0.004)	-0.004 (0.005)	0.014** (0.004)	-0.028*** (0.004)
Observations	2275	6269	4975	4141	4749
R-squared	0.018	0.021	0.011	0.006	0.01
Adj. R-squared	0.015	0.02	0.009	0.004	0.008
F-Statistic	6.01***	18.978***	7.726***	3.271***	6.543***

*Note:*

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001

# I Model Results For Each Individual Hypothesis Without Conditioning on Other Covariates

Table 18: Measuring Effect of Additional Information on Matching the Fact-Checker's Evaluation Without Conditioning on Control Variables

	<i>Dependent variable:</i>			
	(H1.1)	(H1.2)	(H3.1)	(H3.2)
Treatment (Full Text)	0.058*** (0.011)	0.087*** (0.011)		
Treatment (Search)			0.064** (0.021)	-0.014 (0.021)
Observations	2275	8910	8764	
R-squared	0	0.003	0.008	
Adj. R-squared	0	0.003	0.008	
F-Statistic	0.518***	30.473***	67.612***	

*Note:*

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001

Table 19: Measuring Effect of Additional Information on Rating an Article as True Without Conditioning on Control Variables

	<i>Dependent variable:</i>				
	(H2.1)	(H2.2)	(H2.3)	(H2.4)	(H3.3)
Treatment (Source)	-0.072*** (0.015)	0.044** (0.013)	-0.062*** (0.015)	-0.016 (0.015)	
Treatment (Search)					0.072*** (0.014)
Observations	2275	6269	4975	4141	4749
R-squared	0.005	0.005	0.005	0.003	0.004
Adj. R-squared	0.004	0.005	0.005	0.002	0.004
F-Statistic	10.603***	34.468***	25.694***	11.145***	18.334***

*Note:*

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001

## J Model Results Using Ordinal Scale

Table 20: Measuring Effect of Additional Information on Rating an Article as True (Likert Score)

	<i>Dependent variable:</i>				
	(H2.1)	(H2.2)	(H2.3)	(H2.4)	(H3.3)
Treatment (Source)	-0.296*** (0.050)	0.043** (0.013)	-0.262*** (0.051)	-0.087 (0.053)	
Treatment (Search)					0.160* (0.079)
Education	-0.047* (0.022)	0.005 (0.006)	0.003 (0.024)	0.051* (0.024)	-0.012 (0.036)
Age	0.002 (0.002)	0.0001 (0.0004)	-0.002 (0.002)	0.002 (0.002)	-0.010*** (0.002)
Gender (Male)	0.144** (0.050)	0.033* (0.014)	0.129* (0.052)	0.074 (0.053)	0.025 (0.079)
Income	-0.031 (0.028)	0.006 (0.008)	0.055 (0.030)	0.014 (0.030)	-0.004 (0.045)
Ideology	-0.075*** (0.015)	0.002 (0.004)	-0.041* (0.016)	0.056*** (0.016)	0.117*** (0.025)
Observations	2275	6269	4975	4141	4749
R-squared	0.022	0.021	0.016	0.006	0.012
Adj. R-squared	0.019	0.02	0.015	0.004	0.01
F-Statistic	7.204***	18.978***	11.84***	3.271***	7.884***

*Note:*

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001

## K Model Results Using Logistic Regression

Table 21: Measuring Effect of Additional Information on Matching the Fact-Checker's Evaluation - Categorical (Logistic Regression)

	<i>Dependent variable:</i>			
	(H1.1)	(H1.2)	(H3.1)	(H3.2)
Treatment (Full Text)	0.059*** (0.011)	0.364*** (0.046)		
Treatment (Search)			0.305*** (0.059)	-0.072 (0.096)
Education	-0.001 (0.005)	0.023 (0.021)	0.091*** (0.027)	0.085 (0.044)
Age	-0.001 (0.0004)	-0.001 (0.001)	-0.001 (0.002)	0.009** (0.003)
Gender (Male)	0.030** (0.011)	0.195*** (0.046)	0.148* (0.060)	-0.082 (0.097)
Income	0.009 (0.006)	0.004 (0.026)	-0.010 (0.034)	-0.027 (0.055)
Ideology	-0.009** (0.003)	-0.051*** (0.013)	-0.121*** (0.017)	-0.159*** (0.028)
Observations	2275	3809	8764	
R-squared	0.023	0.006	0.012	
Adj. R-squared	0.02	0.005	0.011	

*Note:*

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001

## L Adjusting for Multiple Hypotheses

Table 22: Unadjusted and Adjusted P-Values Testing Each Hypothesis

	(H1.1)	(H1.2)	(H2.1)	(H2.2)	(H2.3)	(H2.4)	(H3.1)	(H3.2)	(H3.3)
Unadjusted P-Value	0	0	0	0.0013	0	0.2244	0	0.458	0.0047
P-Value (FDR Adjusted)	0	0	0	0.002	0	0.2524	0	0.458	0.006
P-Value (Bonferroni Adjusted)	0	0	0	0.0117	0	1	0	1	0.0423

## M Inter-Rater Reliability for Ideological lean of Articles

We determine the partisan lean of the articles by asking four independent coders to determine the partisan perspective of the article (conservative, liberal, neutral and unclear). The partisan lean was determined by taking the modal evaluation of the coders. When there was no modal evaluation, or there was a tie, the evaluation of a graduate student was used as the tiebreaker. Coders were asked to use only the headline and content of the article to make their determination. The following guidance was given to raters for selecting the partisan perspective:

Articles that are clearly written from a partisan perspective should be classified according to whichever direction that is, even if the article is not completely supportive of the political party that shares that ideology. Articles that are clearly advocating for one side of the political spectrum should be classified as leaning that way. Importantly, just because partisans may feel differently about an article, does not mean the article does not have a neutral perspective. For example, “Trump Impeached” may induce very different reactions among liberals and conservatives, but the article could still be neutral so long as it reports on this event objectively. Conversely, “Trump is a Crook” likely has a liberal perspective. Importantly, neutral articles are those where the perspective is balanced and appears to show no bias. Unclear articles are those where the perspective does not appear to be any of the three above or you are unable to make a clear determination. The level of agreement and Fleiss Kappa for these ratings are listed below:

Table 23: Inter-Rater Reliability Statistics for Ideological Perspective of Articles

Coding Task	Group of Articles	Agreement	Fleiss Kappa
Partisan lean of of articles (4 categories)	All Articles	57.14	0.62



## N Financial Incentive Experiment

Over ten days during Study I (December 16th, 2019 - February 6th, 2020), 13 different false/misleading articles were evaluated by individuals in our control group ( $N = 1,250$ ) and those who were given a financial incentive for the correct answer ( $N = 1,249$ ). We found very little difference in the evaluations of individuals. We display a comparison in the proportion of responses for false/misleading articles and True articles in Figure 4 and Figure 5 respectively.

Figure 4: This figure presents the proportion of evaluations for *false/misleading* articles for those given extra financial incentive and those not given an extra financial incentive.

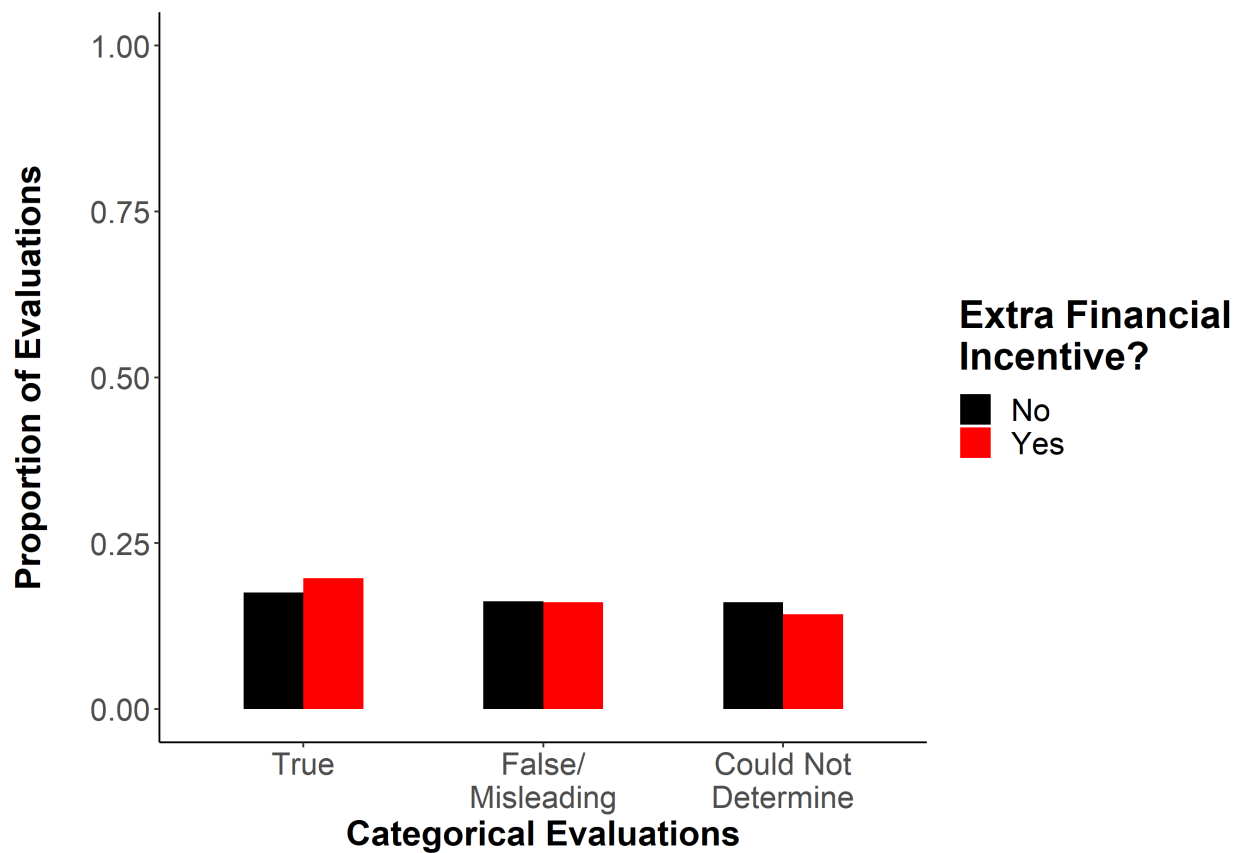
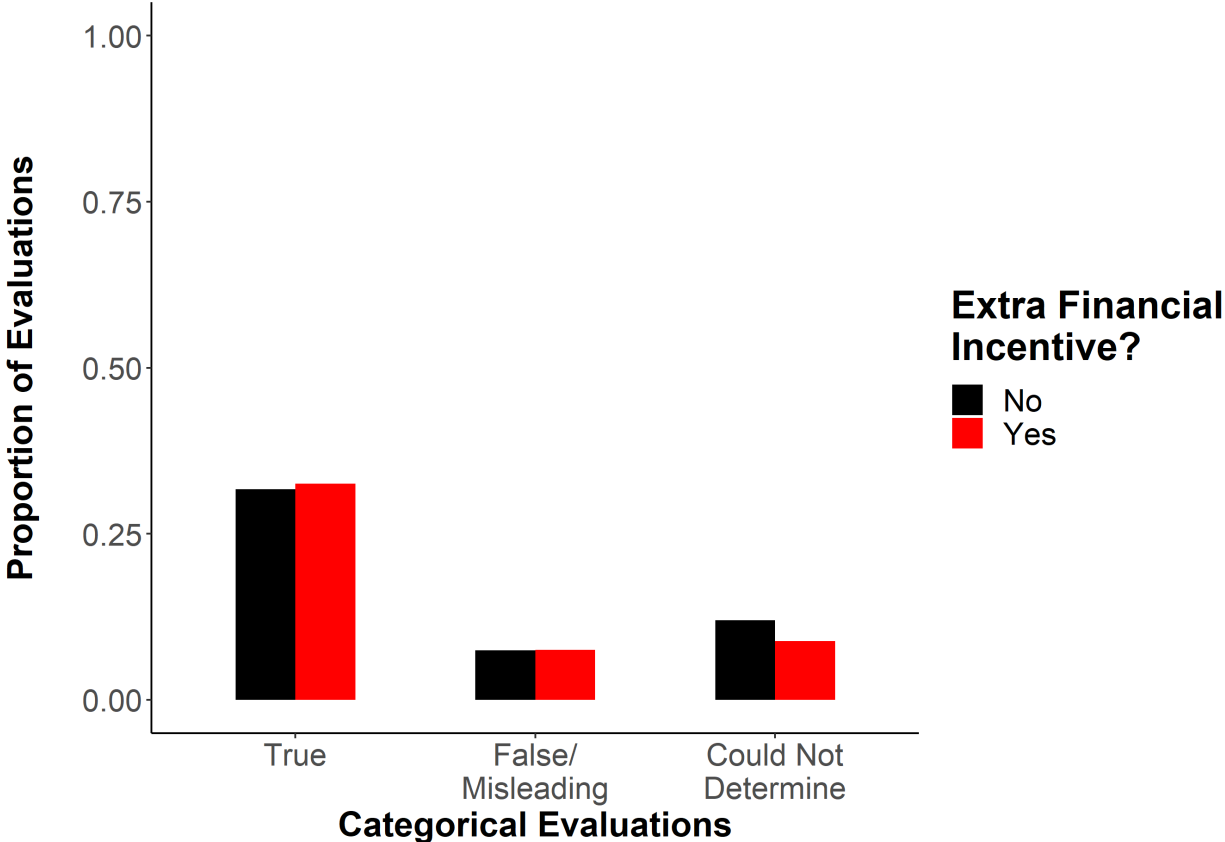


Figure 5: This figure presents the proportion of evaluations for *true* articles for those given extra financial incentive and those not given an extra financial incentive.



## O Correlation Between Ordinal and Categorical Measures of Veracity

Table 24: Measuring Correlation Between Evaluating an Article as True on the Ordinal Measure of Perceived Veracity

	<i>Dependent variable:</i>
	(1)
Categorical Measure (True)	2.501*** (0.014)
Constant	3.585*** (0.011)
Observations	45433
R-squared	0.527
Adj. R-squared	0.527
F-Statistic	30279.203***
<i>Note:</i>	*p<0.05; **p<0.01; ***p<0.001

## P Inter-Rater Reliability for Veracity Evaluations by Professional Fact-Checkers of Articles

Table 25: Inter-Rater Reliability Statistics for Veracity Evaluations of Articles

Coding Task	Group of Articles	Agreement	Fleiss Kappa
Veracity of Article (3 categories)	All Articles in Both Experiments	46.67	0.4

## Q Measuring Variables of Interest

**Cognitive Reflection:** Cognitive Reflection is measured using four questions from a cognitive reflection test used by Thomson and Oppenheimer (2016). Each respondent answers this set of questions once. The variable starts at 0 and one unit is added to the variable for each correct answer (A value of one is assigned to this variable if the respondent has one correct answer; a value of two is assigned to this variable if the respondent has two correct answers, etc.).

**Digital Literacy:** Digital literacy is measured by asking for respondent's familiarity with the following terms: Phishing; Hashtag; Preference Setting; Wiki; PDF; Malware; RSS; BCC (on email); Tablet; Tagging. We ask them for their familiarity on a five point scale (1 representing no understanding and 5 representing full understanding). The digital literacy score for each respondent is the average of the scores across these categories.

**Ideology of respondent:** We ask individuals to self-identify their ideology using the following question. The score they receive on the ideological scale is in parentheses next to the answer they give.

Question: Where would you place yourself on this scale?

- (A) Extremely Conservative (3)
- (B) Conservative (2)
- (C) Slightly Conservative (1)
- (D) Moderate (0)
- (E) Slightly Liberal (-1)
- (F) Liberal (-2)
- (G) Extremely Liberal (-3)
- (H) Haven't Thought Much About it (NA)

**Education:** We ask individuals to self-identify their highest degree earned and attribute the following numeric value to each answer: No High School education (0); High School Education (1); Associates Degree (2); Bachelors Degree (3); Masters Degree (4); Doctorate Degree

**Income:** We ask individuals to self-identify their income from last year and attribute the following numeric value to each answer: \$0 - \$50,000 (0); \$50,000 - \$100,000 (1); \$100,000 - \$150,000 (2); \$150,000 plus (3)

**Familiarity with an Article:** For each article we ask the respondent the following question.

**Have you seen or heard of this story before?**

- (A) Yes
- (B) No
- (C) Not Sure

If a respondent answers "Yes", they are familiar with the story and the variable *Familiarity\_Dummy<sub>i,j</sub>* is assigned a value of 1. Otherwise it is assigned a zero.

## R Detailed Sampling and Demographic Characteristics

With these hypotheses in mind, we next turn to describing our recruiting strategy, how we sample the true and false/misleading articles to be evaluated by our respondents, and the experimental design in the three sections below.

### R.1 Recruiting Respondents

Qualtrics recruits individuals through various panels. These panelists are then randomly assigned by Qualtrics, at our instruction, to versions of the survey that implement the various treatment or control conditions outlined in the previous section. Each participant was paid for their participation in either airline miles or direct transfers of money upon completion of our 15-minute survey.<sup>2</sup> An opt-in internet survey administered by Qualtrics is ideal for this task given that existing research has found that experimental results identified using a gold-standard probability sample are often comparable to effects identified using an opt-in online panel (Mullinix et al. 2015).<sup>3</sup> Although some opt-in surveys suffer from a lack of effort among participants, we found that offering higher levels of incentives did not change the answers we received.<sup>4</sup>

In Study 1, we tested the different components of H1 & H2 (the effect of full text vs. just headline and lede and the effect of providing source information or not) by sending out surveys and asking respondents to evaluate articles on ten separate days beginning on January 8, 2020 and ending on February 1, 2020. Over this period, we recruited 7,274 unique respondents who were assigned to the different treatment categories laid out in Figure ?? (Section 2.1). Study 2 tested the effect of searching for additional information online and sent out surveys to evaluate articles on ten separate days beginning on November 21, 2019 and ending on January 7, 2020. Over this period, we recruited 3,006 survey respondents who were assigned to either a treatment or control condition as laid out in Figure ?? (Section 2.3).

The groups of survey respondents were balanced every day in each article group by ideology,<sup>5</sup> gender,<sup>6</sup> age,<sup>7</sup> and education.<sup>8</sup> The full demographic breakdown is presented in Tables 26 and 27 below. We also report difference means between the groups of respondents in Tables 28 and 29 and find very little differences between each group of respondents evaluating articles with different levels of information. The only substantial and statistically significant difference is that respondents evaluating the articles with the most information (full text and the source) are between 3 and 4 years older on average than respondents evaluating the other types of articles. Given that 4 years is less than 0.25 standard deviations of age within the whole sample of respondents and that we control for age in our models, this should not meaningfully impact the inference we can make from the results presented in this paper.

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<sup>2</sup>Not all respondents are paid the same amount, as it is up to both the participant and the vendor (Qualtrics) to negotiate terms.

<sup>3</sup>An added advantage of using Qualtrics for our particular study is that online sampling predominately recruits those in whom we are actually most interested: in, frequent users of the internet who are most likely to consume online news. Thus even if our results are less likely to be generalizable to overall population, they are still likely to be generalizable to the population that consumes news online more than other recruiting techniques such as in-person surveys.

<sup>4</sup>In a parallel study that paid respondents additional payments for correct answers to our veracity question, we did not find any difference in responses. Figures displaying these results are located in section J of the supplementary materials.

<sup>5</sup>1/3 self-identify as liberal, 1/3 self-identify as moderate, 1/3 identify as conservative

<sup>6</sup>We use census proportions which approximate to: 1/2 self-identify as male; 1/2 as self-identify as female; a small percentage self-identify as another gender

<sup>7</sup>We use census proportions which approximate to: 1/3 between the age of 18-34; 1/3 between the age of 35-54; 1/3 55 years old and above

<sup>8</sup>1/2 have no high school/ high school degree/partial college; 1/2 have a college degree or more.

Table 26: Summary Statistics for Respondents in Study 1

Article Type	Number of Respondents	Average Age	Proportion with a College Degree or more	Proportion that Self-Identify as Female
Headline - No Source ( <i>Article Format 1</i> )	1735	44.98	0.51	0.47
Full Article - No Source ( <i>Article Format 2</i> )	1919	44.72	0.48	0.48
Headline - Source ( <i>Article Format 3</i> )	1752	44.03	0.48	0.46
Full Article - Source ( <i>Article Format 4</i> )	1868	48.07	0.48	0.49

Table 27: Summary Statistics for Respondents in Study 2

Article Type	Number of Respondents	Average Age	Proportion with a College Degree or more	Proportion that Self-Identify as Female
Control (not encouraged to search for information)	1521	46.52	0.51	0.49
Treatment (encouraged to search for information)	1485	45.64	0.48	0.46

Table 28: Average Difference Between Groups in Study 1

Groups	Age	Education Level	Gender (Prop. Female)
<i>Article Format 1</i> and 2	0.27	-0.013	0.05
<i>Article Format 1</i> and 3	0.9	0.014	0.05
<i>Article Format 2</i> and 3	0.64	0.027	0
<i>Article Format 2</i> and 4	3.43***	0.009	-0.04
<i>Article Format 3</i> and 4	4.07***	0.036*	-0.04

\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$

Table 29: Average Difference Between Groups in Study 2

Groups	Age	Education Level	Gender (Prop. Female)
Control and Treatment	0.84	0.028	0.05

\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$

## R.2 Sampling Articles for Evaluation

Each respondent was asked to evaluate three different popular articles published within the previous 48 hours. Existing studies in this field have tested the effect of additional information, such as guidelines to identify misinformation (Guess, Lerner, et al. 2020), fact-checking labels (Ecker, Lewandowsky, and Tang 2010; Clayton et al. 2019; Pennycook, Bear, et al. 2020) and source information (Sundar and Nass 2001) by asking respondents to evaluate articles that were either (i) months- (or years)-old and already received fact-checker evaluations (Pennycook, Bear, et al. 2020); or (ii) synthetic news articles composed by the researchers themselves (Clayton et al. 2019). Both of these methods risk three clear article selection effects. First, by limiting articles to only those that have been fact-checked, a study may be limiting their sample to only the most sensational and easiest to fact-check news articles. Second, by choosing articles themselves, researchers may allow their own biases dictate what articles are included in the study. Finally, synthetic news articles are likely different than news articles created “in the wild.” These selection effects likely introduce limitations for properly quantifying the effect of these additional types of information on news encountered online. These limitations are potentially more pronounced when conducting research on news focused on rapidly-changing events.

To address these concerns, we created a transparent, replicable, and pre-registered article selection process that sources popular false/misleading and true articles from across the ideological spectrum within 24-48 hours of their publication. More specifically, we sourced the most popular article that had been published in the past 24 hours from each of the following “streams” of news that we created: liberal mainstream news domains; conservative mainstream news domains; liberal low-quality news domains; conservative low-quality news domains; and low-quality news domains with no clear political orientation. To generate our streams of mainstream news, we collected the top 100 news sites by U.S. consumption between 2016 and 2019 identified by Microsoft Research’s Project Ratio.<sup>9</sup> To classify these websites as liberal or conservative, we used scores of media partisanship from Eady et al. (2020) that assign ideological estimates to websites based on the URL sharing behavior of social media users: websites with a score of below zero were classified as liberal and those above zero were classified as conservative. The top ten websites in each group (liberal or conservative) by consumption were then chosen to create a liberal mainstream and conservative mainstream news feed.<sup>10</sup> For our low quality news sources, we relied on the list of low-quality news sources from Allcott, Gentzkow, and Yu (2019) that were still active at the start of our study in November 2019, which we then subsequently classified into three streams: liberal leaning sources, conservative leaning sources, and those with no clear partisan orientation.<sup>11</sup>

Each day of the study we took the most popular online articles from these five streams (using CrowdTangle for the mainstream sources and RSS feeds for the low-quality ones)<sup>12</sup> that had appeared in the previous 24 hours and sent them to our respondents recruited by Qualtrics. Articles chosen by this algorithm therefore represent the most popular mainstream and low quality news from across the ideological spectrum. This method removed researcher choice from the selection process, overcoming sampling issues that have limited the robustness of previous studies (Clemm von Hohenberg 2020). Collecting and distributing the most popular false/misleading news articles directly after publication is a key innovation that enables us to test the effect of additional types of information from the article on perceived veracity of news *at precisely the time* that readers were likely to encounter these articles on social media (Vosoughi, Roy, and Aral 2018).<sup>13</sup> Every respondent evaluated three articles randomly selected from the five articles being evaluated that day. Each article was assessed by roughly 90 respondents who were required to complete the survey within 24 hours of the moment we selected the articles, which resulted in respondents evaluating articles within 48 hours of the article’s publication. No respondent was allowed to take the survey more than once. Respondents evaluated each article using a variety of criteria, the most germane of which was a categorical evaluation question: “What is your assessment of the central claim in the article?” to which respondents could choose from three responses: (1) True (2) Misleading/False (3) Could Not Determine. To assess the reliability and validity of this measure, we also asked our respondents to rate each article on a 7-point ordinal scale of

<sup>9</sup><https://www.microsoft.com/en-us/research/project/project-ratio/>

<sup>10</sup>The list of the sources in each mainstream stream is provided in Section F of the supplementary materials.

<sup>11</sup>The list of the sources in each low-quality stream is provided in section F of the supplementary materials. Explanation for how the partisanship of these sources were determined is provided in Section A of the supplementary materials.

<sup>12</sup>We used RSS feeds instead of CrowdTangle, because most low-quality sources did not have their own Facebook page

<sup>13</sup>All of the articles used in each study are available in section G of the supplementary materials.



perceived veracity; we then predicted the rating of an article on a 7-point scale using a dummy variable measuring whether that respondent rated that article as True (categorical response) using a simple linear regression and found that rating an article as true on average increases the veracity scale rating by 2.5 (nearly 1.5 standard deviations of the veracity scale).<sup>14</sup>

While many studies use source quality as a proxy for article quality, not all articles from suspect news sites are actually false (Allcott, Gentzkow, and Yu 2019). Other studies have relied upon professional fact checking organizations such as Snopes or Politifact to identify false/misleading stories from these sources (Clayton et al. 2019, Pennycook, McPhetres, et al. 2020), but this limits past studies to old articles. To overcome this limitation, we instead hired six professional fact checkers from leading national media organizations to assess each article during the same period as respondents.<sup>15</sup> Most articles were evaluated by five fact-checkers, but a few were evaluated by four or six. We use the modal response of the professional fact checkers to determine whether we code an article as true, false/misleading, or ‘could not determine.’ We are then able to assess the ability of our respondents to identify the veracity of an article by comparing their response to the modal professional fact checker response. For articles used in both studies, we report a Fleiss’ Kappa score of 0.400.<sup>16</sup> This level of agreement is slightly higher than other studies that have used professional fact-checkers to rate the veracity of articles using the same categorical scale we use (Allen et al. 2020).

This method does not come without risks. Sourcing articles by popularity rather than their professional fact-checker rating does risk an unequal distribution of true and false/misleading articles. Indeed, when using this method over ten days in Study 1, we selected 36 articles rated as true by professional fact-checkers, 13 articles rated false/misleading, and 1 article rated as could not determine. Over ten days in Study 2, we selected 40 articles rated as true by professional fact-checkers, 8 articles rated false/misleading, and 2 articles rated as could not determine. The low proportion of false/misleading articles suggests researchers using our method in the future will need to source a significant number of articles in order to have enough false/misleading articles in the sample. If the budget is limited, one way to increase the proportion of false/misleading articles is to only source articles from low quality news sources, as high quality news source articles are almost always rated as true by professional fact checkers. That being said, our study yielded a similar number of false/misleading articles as found in other important studies in the field. For example, much of the recent research in this field only utilizes 12 true news headlines and 12 false/misleading headlines (Dias, Pennycook, and Rand 2020; Pennycook, Bear, et al. 2020); some use even fewer (e.g. 6 (Pennycook and Rand 2020) or 9 (Clayton et al. 2019) false/misleading headlines). For our research purposes, we believed that the benefits of removing the researcher from the article selection process and the improved external validity of running this study in real-time were worth the cost of an unequal distribution of true and false/misleading articles and potentially needing to source more articles to have a large enough sample of false/misleading articles.

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<sup>14</sup>Results from this model can be found in Section O of the supplementary materials.

<sup>15</sup>These professional fact-checkers were recruited from a diverse group of reputable publications (no publications from news domains in our list of possible news domains to ensure no conflicts of interest) and paid \$10.00 per article.

<sup>16</sup>There was unanimous fact checker agreement on over 45% of the articles used in both studies.

## **S Extended Ethics Statement**

The experimental design did not use any deception and did not pose any harm to the survey participants. Respondents were asked for consent at the beginning of the survey and were told exactly what tasks they would be asked to complete. Human subjects were given a portion of the \$6.00 per completion that was paid to Qualtrics. The amount was decided by Qualtrics and varied by respondent. The survey platform did not share the amount given to each respondent with the authors of this manuscript.

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