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DISINFORMATION'S SOCIETAL IMPACT: BRITAIN, COVID, AND BEYOND

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Abstract

Disinformation is widely perceived as a profound threat to democracies. The result is an explosion of research on disinformation's spread and the countermeasures taken against it. Most research has focused on false content spread online. Yet little research has demonstrated the societal impact of disinformation on areas such as trust and social cohesion. Policy responses are mainly based on disinformation's *presumed* impact rather than on its *actual* impact.

This paper advances disinformation research by asking how we can assess its impact more productively, and how research could better inform policy responses to disinformation. It uses examples from Britain between the 2016 'Brexit' referendum campaign and the 2019 General Election, including some preliminary commentary on disinformation during the initial months of the COVID-19 outbreak. First it considers the limitations of existing disinformation research, and how it could address impact more effectively. It then considers how policy responses have been self-limiting by framing the solution as simply reducing the general amount of disinformation online and/or 'inoculating' citizens. Instead we argue for an event or issue-specific focus. This culturally-specific, sociological approach considers different forms of disinformation, the hybrid media systems through which they spread, and the complex offline and online social networks through which impact may occur.

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Introduction

Disinformation is perceived by many as one of the greatest threats to liberal democracies today. Hostile actors attempt to use it to undermine governments by shaping voting behaviour, propagating conspiracy theories, radicalising Salafi-jihadists, and inciting ethnic cleansing.[1] Commentators implicate it in the rise of populism, the election of Donald Trump, the rejection of climate science and of vaccination.[2] In the UK, commentators blame disinformation for Brexit and the 2019 general election.[3] The ongoing COVID-19 outbreak has seen a slew of disinformation, from what caused the outbreak to a range of speculative cures. The most controversial in the UK has been a conspiracy that 5G masts are spreading the virus, leading to over fifty being damaged in

1 House of Commons Digital, Culture, Media and Sport Committee, 'Disinformation and "Fake News": Final Report', Eighth Report of Session 2017–19', HC1791, 14 February 2019. [Accessed 18 February 2019]; Paul Mozur, 'A Genocide Incited on Facebook, With Posts From Myanmar's Military', *New York Times*, 15 October 2018. [Accessed 13 February 2019]

2 H. Allcott and M. Gentzkow, 'Social Media and Fake News in the 2016 Election', *Journal of Economic Perspectives*, 31,Nº 2 (2017): 211–36; Matt Burgess, 'Here's the First Evidence Russia Used Twitter to Influence Brexit', 10 November, *Wired*, 10 November 2017. [Accessed 18 December 2019]; Sander Van der Linden et al., 'Inoculating the Public against Misinformation about Climate Change', *Global Challenges*, 1, Nº 2 (2017). [Accessed 18 December 2019]

3 Carole Cadwalladr, 'The Great British Brexit Robbery: How Our Democracy Was Hijacked', *The Guardian*, 7 May 2019. [Accessed 15 December 2019]; Andrew Grice, 'Fake News Handed Brexiteers the Referendum—And Now They Have no Idea What They're Doing', *Independent*, 18 January 2017. [Accessed 15 February 2019]; Alex Hern (b), 'How the Tories Won the Online Election: Pick a Line, Ignore the Facts and Repeat', *The Guardian*, 14 December 2019. [Accessed 15 December 2019]

April 2020.[4]

Different actors are blamed for disinformation in different contexts. Digital media is prominent. Culprits include private companies such as Cambridge Analytica, platforms such as 4Chan, Russian hackers, white supremacists, social media echo chambers, political leaders and their parties.[5] The recording of Donald Trump's 10,000th false or misleading utterance in under two and a half years in office suggests a world order in which disinformation and division are becoming more routine.[6]

Responding to an apparent 'moral panic' about 'fake news',[7] extensive research has examined disinformation's spread online. Studies illustrate that the internet can dramatically increase the 'quantity, reach and speed' of disinformation's spread through memes, bots, sock puppets, trolls, websites, and filtering algorithms.[8] Researchers have identified demographic variables that may explain tendencies to spread disinformation, but there is little consensus.[9] Several correlate low education and belief in disinformation;[10] others suggest higher levels of education make it easier to construct arguments favouring one's existing beliefs.[11] Young social media users are often considered most likely to spread and believe disinformation;[12] others find older generations are more susceptible.[13] Psychologists have used many cognitive biases to explain belief in disinformation—confirmation bias, motivated reasoning, primacy effects, the illusory truth effect, and more.[14]

4 Nic Fildes et al., 'How a 5G Coronavirus Conspiracy Spread Across Europe', *Financial Times*, 16 April 2020.
5 For thorough reviews, see Y. Benkler, R. Faris, and H. Roberts, *Network Propaganda: Manipulation, Disinformation and Radicalization in American Politics* (Oxford: Oxford University Press, 2018); Joshua Tucker et al., *Social Media, Political Polarization and Political Disinformation: A Review of the Scientific Literature*, Hewlett Foundation, 19 March 2018. [Accessed 15 November 2019]; Samuel Woolley, and Philip N. Howard (eds), *Computational Propaganda: Political Parties, Politicians, and Political Manipulation on Social Media* (Oxford: Oxford University Press, 2018).
6 Glenn Kessler et al., 'President Trump Has Made More Than 10,000 False or Misleading Claims', *Washington Post*, 29 April 2019. [Accessed 1 December 2019]
7 Matt Carlson, 'Fake News as an Informational Moral Panic: The Symbolic Deviancy of Social Media During the 2016 US Presidential Election', *Information, Communication & Society*, 23, Nº 3 (2018): 374—88.
8 Benkler et al., *Network Propaganda*; House of Commons, 'Disinformation'; Woolley and Howard, *Computational Propaganda*.
9 Andrew Guess, Jonathan Nagler and Joshua Tucker, 'Less Than You Think: Prevalence and Predictors of Fake News Dissemination on Facebook', *Science Advances*, 5, Nº 1 (2019): 1—9.
10 Gordon Pennycook, Tyrone Cannon and David Rand, 'Prior Exposure Increases Perceived Accuracy of Fake News', *Journal of Experimental Psychology: General*, 147, Nº 12 (2018): 1865–80. [Accessed 12 February 2019]
11 D. J. Flynn, Brendan Nyhan, and Jason Reifler, 'The Nature and Origins of Misperceptions: Understanding False and Unsupported Beliefs About Politics', *Political Psychology*, 38, Nº S1 (2017): 127–50.
12 Sam Wineburg et al., *Evaluating Information: The Cornerstone of Civic Online Reasoning*, Stanford History Education Group, (2016). [Accessed 15 January 2020]
13 Guess et al., 'Less Than You Think'.
14 Annenberg School for Communication, 'Understanding and Addressing the Disinformation Ecosystem', Workshop Paper, 15–16 December 2017. [Accessed 24 November 2019]; Christopher Paul, and Miriam Matthews, 'The Russian 'Firehose of Falsehood' Propaganda Model: Why it Might Work and Options to Counter It', The RAND Corporation, 2016. [Accessed 15 January 2020]

Most studies and policy responses frame disinformation as an online problem requiring online solutions, including improved fact checking, more robust filtering algorithms, and internet regulation.[15] Yet little research studies disinformation's actual societal impact. Disinformation is thought to exert societal effect by damaging trust between citizens and government, or social cohesion by exacerbating division.[16] Whether it is really doing so remains unclear. Policy responses mainly reflect the impact disinformation is *assumed* to be having rather than proven impact it is *actually* having.

This paper therefore asks two related questions: How we can assess disinformation's impact more productively? And how can research better inform efforts to counter disinformation?

We examine these issues through a critical analysis of policy responses to disinformation and the academic literature that informs them. To illustrate our argument we draw on examples from British politics between the 2016 Brexit referendum and today—as well as examples from elsewhere where it is useful to do so. As with any state, the UK's communication environment is unique. We are examining it not because we want to generalise that other contexts are the same. Rather, we are using it because it is an ideal case to illustrate descriptively the key tensions underpinning research and policy responses to disinformation—between assertion and evidence, external and internal threats, 'traditional' and social media, and between online and offline pathways to impact. Prominent commentary attributes the result of the Brexit referendum, and the 2019 general election, to disinformation shaping voting behaviour.[17] Currently, neither is substantiated empirically. The UK government's *Online Harms White Paper*[18] and its 'Don't Feed the Beast' counter-disinformation campaign[19] suggest being 'careful what you share' because 'things aren't always what they seem *online*' [our emphasis]. The campaign is important, but reveals potential limitations of counter-disinformation policy responses—the tendency to overemphasise the role of *false* content spread by *external* actors on *social* media, and to downplay the spread of *misleading* content by *traditional* media and *domestic* political actors.

15 For example, see House of Commons, 'Disinformation'.
16 John Watts, *Whose Truth? Sovereignty, Disinformation and Winning the Battle of Trust*, Atlantic Council, 19 September 2018. [Accessed 17 December 2019]
17 Cadwalladr, 'The Great', Grice, 'Fake News', Hern, 'How the Tories'.
18 Department for Digital, Culture, Media and Sport, *Online Harms White Paper*, HM Government, 2019. [Accessed 18 December 2019]
19 'Share Checklist: Don't Feed the Beast', HM Government, 2019. [Accessed 20 December 2019]

The article proceeds as follows. First, we conceptualise disinformation and how to think about its impact. We argue for a substantial rethink in how disinformation is conceptualised and studied to enable impact to be assessed more productively. We illustrate how future research on disinformation's impact should look beyond social media and draw more strongly on hybrid media approaches. Rather than focusing only on online spread it should incorporate analysis of offline social networks. A common language is needed to conceptualise disinformation's impact, beyond considering it a 'pathogen' whose effects will be resolved by 'inoculation'. Rather than assuming disinformation undermines trust and social cohesion, we discuss how these can be examined more directly.

Finally, we explain how multidimensional research could better inform counter-disinformation interventions. So far, policy interventions have prioritised reducing the general amount of disinformation online. But since people tend to engage only with information that interests them, we advocate an events- or issues-based approach. This would target disinformation relating to specific issues and the networked communities they affect in a given cultural context.

Definitions and Concepts

Identifying and measuring disinformation's impact requires clear definitions. Most research and policy discourse focuses on disinformation, defined here as false or misleading information spread *intentionally* to deceive.[20] This is synonymous with earlier definitions of 'fake news', although the latter is increasingly rejected for being used as an expletive to describe information one disagrees with to shut down debate.[21]

'Misinformation' is defined here as false or misleading information spread *without* the intention to deceive. The same content can be disinformation when intentionally deceptive, and misinformation if spread unwittingly. This makes differentiating disinformation and misinformation difficult. Intent is hard to prove. These terms will be used when discussing explicitly whether false information is spread deliberately (disinformation) or accidentally (misinformation). If this is unclear, disinformation will be used as a master term for stylistic purposes.

20 Allcott and Gentzkow, 'Social Media', p. 213; J. Althuis, and L. Haiden, *Fake News: A Roadmap* (Riga: NATO StratCom Centre of Excellence, 2018), p.19.
21 Althuis and Haiden, *Fake News.*

Understanding Impact

To clarify, our focus is on literature concerning the *impact* of disinformation, rather than disinformation research generally. This is an important delimitation. In most cases disinformation's negative impact is assumed rather than demonstrated. That disinformation is undermining democracy is simply inferred from it being 'out there' in civil society. If one agrees with this, the issue of impact can be avoided, as it is taken for granted by the mere presence of disinformation.

In contrast, our main focus is the subset of disinformation research explicitly examining its impact. Where relevant, we touch on the literature on propaganda and media effects, in which the challenge of determining the effect of communication has long been recognised. Many examples we cite refer to rumours and conspiracy theories, since these are often the focus of disinformation research.[22] But our central focus is on recent literature on the impact of disinformation, authored in the age of social media.

Disagreement over what constitutes 'impact' complicates matters. Strategic communications practitioners see impact as changing (or reinforcing) beliefs and behaviours, and many prioritise the latter.[23] Voting behaviour is of obvious concern for liberal democracies—either not voting due to disengagement, or voting for figures keen to undermine democratic checks and balances. Political violence, of course, is also a clear concern.

We contend that the impact of disinformation can be split into the following areas:

- Spread (superficial online/offline behaviour towards dis/misinformation)
- Attitude change or reinforcement (e.g. the psychological effects of dis/misinformation on beliefs, cognition)
- Behaviour change (e.g. altering voting behaviour, disengagement from politics)
- Broader societal impact (e.g. reducing institutional trust, undermining social cohesion)

22 Santanu Chakrabarti et al., *Duty, Identity, Credibility: Fake News and the Ordinary Citizen in Kenya and Nigeria—A Comparative Study*, *BBC News* independent study, 2018. [Accessed 14 December 2019]; A. Perera, 'Who Can Stop India WhatsApp Lynchings?', *BBC,* 5 July 2018. [Accessed 3 February 2019]
23 A. Mackay, and Steve Tatham, *Behavioural Conflict: Why Understanding People and Their Motivations Will Prove Decisive in Future Conflict* (Saffron Walden: Military Studies Press, 2011).

This list reveals a tension inherent in disinformation research. Farther down the list, the impacts are of broader societal significance and potentially of greater policy interest. However, they are hardest to demonstrate. For example, psychologists have identified numerous cognitive biases to explain belief in disinformation.[24] These have been comprehensively reviewed elsewhere.[25] Because of this we know, in theory, plenty about how disinformation may shape beliefs. Outside the research laboratory, though, the complexity of the communication environment makes it hard to determine whether disinformation is shaping beliefs more than all the other information humans experience every day.

Due to the difficulty measuring 'real world' impact, much disinformation research has approached impact in terms of *spread*. This is appealing as a readily measurable behaviour—clicks, retweets, site visits etc. It is a superficial form of impact, though, and of limited use when considering the broader societal effects of disinformation.

Governments are routinely preoccupied with staying in power. However, a greater concern liberal democracies have about disinformation is that it might subvert the democratic system generally. Theoretically, in a healthy democracy, citizens engage in open, civil and rational debate. This facilitates reasoned consensus around responses to societal challenges.[26] Theoretically, democracy 'relies on an informed electorate'.[27] Without it, it is harder for citizens to 'infer the true state of the world' or to know which sources to trust.[28] The ultimate fear is that they might elect undemocratic leaders who then subvert democratic checks and balances.

Due to the difficulties of showing that disinformation specifically has caused such outcomes, few have attempted to do so. It is understandably easier to focus on disinformation's *spread* and assume that by existing it is undermining democracy. For instance, observers of Russian disinformation have focused on its apparent aim of causing citizens to disengage from democratic politics by presenting so many different interpretations of events that they come to distrust all information sources.[29] Evidence of Russia *spreading* such

24 Paul and Matthews, 'The Russian'.
25 Annenberg School for Communication, 'Understanding and Addressing'.
26 L. Jacobs et al., *Talking Together: Public Deliberation and Political Participation in America*, (Chicago: University of Chicago Press, 2009).
27 Pennycook et al., 'Prior Exposure'.
28 Allcott and Gentzkow, 'Social Media'.
29 G. Ramsey, and S. Robertshaw, 'Weaponising news: RT, Sputnik and targeted disinformation', The Policy Institute: Centre for the study of Media, Communication and Power, King's College London, 2019. [Accessed 3 February 2019]

information is extensive over the short and long term.[30] But causally linking measurable indicators of political disengagement to Russian disinformation is far more difficult. In the UK at least, political engagement—including voting percentages—has steadily increased throughout the twenty-first century, despite the increased prominence of disinformation campaigns.[31]

Policy interventions prioritise spread too. Recommendations mainly concern regulating platforms used to spread disinformation.[32] This may be positive, but is mostly based on the impact disinformation spread *might* be having on society rather than proven impacts it is *actually* having.

Research on disinformation's impact

Research on the impact of disinformation's *spread* is mainly focused on electoral outcomes. The 2016 US presidential election dominates. A Buzzfeed report showed how the twenty top-performing false election stories achieved more online engagement than the twenty top-performing true articles.[33] Later, a large Twitter study found that falsehoods spread faster and wider.[34] Follow-up polling based on six false headlines showed that 75% of US citizens familiar with them found them 'somewhat' or 'very accurate'.[35]

Later studies reveal nuances. Allcott and Gentzkow, studying 156 'fake news' articles circulated during the 2016 election, estimated that the typical US adult remembered only 1.14 'fake news' stories during the campaign.[36] With public recall so limited, the authors concluded that disinformation's electoral impact was minimal—'hundredths of a percentage point'.[37] Guess et al. concur, finding on Facebook that over 90% of citizens shared nothing from a 'fake news website'. They concluded that it is 'important to be clear about how rare this behaviour is'.[38]

30 Ibid.
31 Elise Uberoi, and Neil Johnston, 'Political disengagement in the UK: who is disengaged? House of Commons Library, Briefing Paper CBP-7501, 16 October 2019.
32 House of Commons, 'Disinformation'.
33 Craig Silverman, 'This Analysis Shows How Viral Fake Election News Stories Outperformed Real News On Facebook', *BuzzFeed News*, 16 November 2016. [Accessed 17 December 2018]
34 Soroush Vosoughi, Deb Roy, and Sinan Aral, 'The Spread of True and False News Online', *Science*, 359, Nº 6380 (2018): 1146–51.
35 Craig Silverman, and Jeremy Singer-Vine, 'Most Americans Who See Fake News Believe It, New Survey Says', *Buzzfeed News*, 6 December 2016. [Accessed 12 December 2019]
36 Allcott and Gentzkow, 'Social Media', p. 213.
37 Ibid., p. 232.
38 Guess et al., 'Less Than You Think', p. 1.

Disinformation's electoral impact may be unclear, but some examples show disinformation impacting beliefs and behaviours. Stock market manipulation provides one example. In 2013, a tweet by the Associated Press (AP), falsely reporting explosions in the White House, resulted in a $130 billion drop in stock value.[39] In 2015, a Scottish trader was charged for deliberately spreading disinformation regarding two companies to profit from stock rebounds, costing shareholders over £1m.[40] Voting decisions may be shaped over years of deliberation, and can involve multiple trade-offs. Stock buying and selling decisions are arguably simpler, happen quickly, and are highly sensitive to perception shifts. With a readily available metric to quantify behavioural impact, disinformation's impact in this context is easier to assess.

Disinformation has also been credited with incidents of 'mob justice' and revenge killings in India and Nigeria.[41] In 2018, the spread of false rumours on WhatsApp in India was credited with causing the self-administered justice and killing of at least 17 people.[42] In Nigeria, police report that 'fake news' spread across Facebook has caused over a dozen killings.[43]

Increased vaccine rejection is one of the few cases indicating stronger evidence of disinformation's behavioural impact. Still, the evidence is strongly circumstantial rather than causal. Measles outbreaks are increasing rapidly worldwide, which authors attribute to discredited research combined with populist conspiracy theories.[44]

Given the scientific consensus favouring vaccination, and the scarcity of official calls to reject it (until recently), vaccine hesitancy is often used to reinforce claims that social media is the key variable. This obscures greater complexity. That over three times as many French citizens (41%) distrust vaccines as the rest of the world (13%) is difficult to attribute to the short-term impact of social media disinformation.[45] Researchers must identify the longer-term factors at play.

39 Kenneth Rapoza, 'Can "Fake News" Impact the Stock Market?', *Forbes*, 26 February 2017. [Accessed 3 February 2019]
40 David Connett, 'Scottish Stock Market Trader "Cost Shareholders £1m with Fake Tweets"', *Independent*, 6 November 2015. [Accessed 18 December 2019]
41 Chakrabarti, et al., *Duty, Identity.*
42 Perera, 'Who Can Stop'.
43 Yemisi Adegoke, et al., 'Like. Share. Kill. Nigerian police say 'fake news' on Facebook is killing people', *BBC News*, 13 November 2018. [Accessed 4 January 2020]
44 Jacqueline Olive, et al., 'The State of the Antivaccine Movement in the United States: A Focused Examination of Nonmedical Exemptions in states and Counties', *PLOS Medicine* 15, N° 6 (2018).
45 H. Larson, et al., 'The State of Vaccine Confidence 2016: Global Insights Through a 67-Country Survey', *EBioMedicine*, 12 (2016): 295–301.

Crisis situations, such as the aftermath of terrorist attacks, have been shown to create environments ripe for misleading rumours and speculation. A high-profile case concerns the March 2017 Westminster Bridge terrorist attack. An image spread of a hijab-wearing Muslim woman walking across Westminster Bridge with a look of apparent indifference to the attack. The account that first tweeted it (@SouthLoneStar) was later traced to the Internet Research Agency in Russia. It was then shared extensively by far-right and Islamophobic social media influencers. This resulted in a significant backlash online against Muslim groups, despite the original photographer releasing the original sequence of photographs to show that the single image was unrepresentative.[46] Again, this demonstrates measurable impact on online behaviour, though whether this changed or merely reinforced existing views is unclear.

Behavioural impact appears easier to identify in health crises, since dis/misinformation is more easily linked to concrete behaviours, such as the decision to vaccinate, or to take or reject medication. *Operation Infektion* is one of the most prominent historical cases of disinformation, in which the Soviet Union successfully propagated in the 1980s the falsehood that AIDS was created in a US government laboratory. That, by 2012, studies report that between one third and one half of US African Americans still believed this illustrates the clear impact of disinformation on beliefs.[47] Of greater impact on behaviour is misinformation by governments, such as the Thabo Mbeki regime in South Africa, which denied the link between HIV and AIDS. Critics blame this for hundreds of thousands of preventable, early deaths, as citizens rejected anti-retroviral medication that may have mitigated the condition.[48]

The COVID-19 outbreak reinforces the notion that it may be more possible to see concrete offline behavioural impacts of disinformation in crisis situations, as uncertainty and fear are heightened.[49] In the UK, in April 2020, dozens of 5G phone masts were vandalised or destroyed by citizens apparently concerned that they were being used to spread coronavirus.[50] The claim has been swiftly and repeatedly

46 Burgess, 'Here's the First'.
47 N. Nattrass, 'Understanding the Origins and Prevalence of AIDS Conspiracy Beliefs in the United States and South Africa', *Sociology of Health & Illness*, 35, N° 1 (2013): 113–29.
48 S. Bosely, 'Mbeki Aids denial 'caused 300,000 deaths'', *The Guardian*, 26 November 2008. [Accessed 19 May 2020]
49 Roy Schulman, and David Siman-Tov, 'From Biological Weapons to Miracle Drugs: Fake News about the Coronavirus Pandemic', Institute for National Security Studies, Insight 1275, 18 March 2020. [Accessed 24 April 2020]
50 Carly Page, 'UK Mobile Networks Slam 'Baseless' 5G Conspiracy Theories Behind Mast Fires', *Forbes*, 2020. [Accessed 24 April 2020]

debunked,[51] and is countered by decades of evidence of how viruses—including coronaviruses—actually spread. Nevertheless, the fact that belief in this potential threat was sufficient to motivate people to commit criminal damage appears to be strong causal evidence of disinformation having measurable offline behavioural impact. Cases of individuals poisoning themselves by attempting cures with no medical evidence provide similar corroboration of the impact of misinformation on behaviour in disease outbreaks.[52] In the UK for instance, misinformation that the everyday painkiller Ibuprofen should not be taken to treat COVID-19 led to widespread shortages of an alternative drug, Paracetamol. The research team reporting on this emphasise the significance of the case because, as rarely occurs in disinformation research, 'direct behavioural effect' could be proven.[53]

Psychology research supports the assertion that the impact of disinformation is more likely to be seen in health scares, whereby heightened panic, and the absence of evidence-based cures, leads people to culture-specific, traditional remedies. Or alternatively, people medicate themselves based on rumours about what works. Certainly such phenomena should not be seen as novel—the WHO itself acknowledged that misinformation during epidemics existed 'even during the Middle Ages'. Neither should social media be seen as a cause—humans have for millennia retained belief in traditional cures without robust empirical evidence, long before social media emerged. Research shows that anger makes people more likely to believe dis/misinformation that confirms their existing beliefs.[54] Research shows that stress makes it harder to engage in deliberative rather than automatic reasoning.[55] It also shows that rumours are more likely to spread when there is inadequate reliable information and high social anxiety.[56] This suggests that emotionally charged situations, such as the fear and frustration engendered by the COVID-19 pandemic, are more likely to see the behavioural impact of disinformation. Disinformation's broader, long-term impact on societies may be more important to liberal democracies in general, but it is far harder to determine.

51 Kate Lewis, '5G is Not Accelerating the Spread of the New Coronavirus', *FullFact*, 31 March 2020. [Accessed 24 April 2020]
52 Neil Vigdor, 'Man Fatally Poisons Himself While Self-Medicating for Coronavirus, Doctor Says', *New York Times*, 24 March 2020.
53 Crime and Security Research Institute, 'Rumours About the Efficacy of Ibuprofen vs Paracetamol in Treating COVID-19 Symptoms: The Making of a Misinformation 'Soft Fact' With Public Health Impact', Cardiff University, 2020. [Accessed 18 May 2020]
54 Brian E. Weeks, 'Emotions, Partisanship, and Misperceptions: How Anger and Anxiety Moderate the Effect of Partisan Bias on Susceptibility to Political Misinformation', *Journal of Communication*, 65, N° 4 (2015): 699–719.
55 Haroro Ingram, 'Pandemic Propaganda and the Global Democracy Crisis'. [Accessed 18 May 2020]
56 J. Heller, 'Rumors and Realities: Making Sense of HIV/AIDS Conspiracy Narratives and Contemporary Legends', *American Journal of Public Health*, 105 (2015): 43–50.

Changing Assumptions: Rethinking disinformation research

To begin to assess the societal impact of disinformation, we argue for a rethink of how disinformation is conceptualised, studied, and responded to by policymakers. We advocate five ways to extend disinformation research and policy responses. Some are novel; others call for extensions to existing trends:

1. Look beyond the spread of disinformation online and especially beyond social media.
2. Examine forms of disinformation other than false content more systematically.
3. Study disinformation's impact in a broader range of cultural contexts.
4. Re-examine language used to describe disinformation and its impact.
5. Examine disinformation's impact on trust and social cohesion multidimensionally.

The rest of the paper elaborates on these. It then ties these threads together by illustrating a multidimensional, issue-focused approach to studying disinformation's impact.

1. Look beyond the spread of disinformation online and especially beyond social media

Disinformation is not just an online or social media issue. This may seem obvious. However, the offline spread and impact of disinformation is something most disinformation research raises as a caveat rather than being factored into research design. Many specifically define disinformation as an online phenomenon, reflecting the original focus on so-called 'fake news websites'.[57] Policy interventions, too, suggest disinformation is one of many 'online harms' to be mitigated.[58]

57 European Commission, *A Multi-dimensional Approach to Disinformation: Report of the Independent High Level Group on Fake News and Online Disinformation* (Luxembourg: Publications Office in the European Union, 2018). [Accessed 2 December 2019]
58 DCMS, *Online Harms.*

Our contention is that the 'online' qualifier would be best removed from this call to action, to gain a fuller perspective on disinformation's societal impact. We are not arguing that studying online behaviour is not useful. Rather, we advocate going beyond existing approaches to incorporate more diverse news-sharing behaviours, including offline.

Policy responses to counter disinformation need to catch up with a growing literature on how disinformation spreads across hybrid media systems incorporating both social and traditional media.[59] UK responses to date focus primarily on social media, while silencing the role of traditional media. The UK's *Online Harms White Paper* exemplifies this in its description of 'The Problem' democracies face with disinformation:

> There is a real danger that hostile actors use online disinformation to undermine our democratic values and principles. Social media platforms use algorithms which can lead to 'echo chambers' or 'filter bubbles', where a user is presented with only one type of content instead of seeing a range of voices and opinions. This can promote disinformation by ensuring that users do not see rebuttals or other sources that may disagree and can also mean that users perceive a story to be far more widely believed than it really is.[60]

The most striking reasons to move far beyond social media when studying and intervening to counter disinformation is that in many countries, few individuals share news on social media, fewer still trust it, and this trust is declining.[61] Citizens globally express concern that the internet, and social media in particular, are platforms through which disinformation spreads. Consequently, they trust social media news less. In 2018, in response to a poll conducted by Reuters, 51% of citizens reported that they trust the media they use most of the time, 44% trust news media in general, but only 23% trust social media news. In the UK, only 22% of respondents reported sharing news online, only 12% trust social media news, and this percentage is declining.[62] This suggests that if one's concern is

59 Andrew Chadwick, *The Hybrid Media System: Politics and Power, 2nd ed.* (Oxford: Oxford University Press, 2017); Andrew Chadwick, Cristian Vaccari, and Ben O'Loughlin, 'Do Tabloids Poison the Well of Social Media?', *New Media & Society*, 20, Nº 11 (2018): 4255—74.
60 DCMS, *Online Harms*, p. 5.
61 N. Newman et al., *Reuters Institute Digital News Report 2018* (Reuters Institute and the University of Oxford, 2018). [Accessed 12 December 2019]
62 Ibid.

disinformation spread on social media, one's focus is immediately narrowed to a subgroup of the population. The spread of disinformation offline receives minimal attention.

Policy responses focusing only on social media neglect the significance of traditional media and offline communication networks. The power and spread of social media content is inextricably tied to traditional media. The two should not be considered in isolation, even if this makes research more complex. Studies show that over a third of Twitter content references traditional media content.[63] Content that goes 'viral' on social media typically requires amplification by traditional media.[64]

Recognising this, a growing number of studies have adopted hybrid approaches. These recognise the interdependence of social media and 'traditional' media, and the complex interrelationships through which political elites, news producers, and citizens communicate.[65] The multidimensional methods such studies adopt are better placed to examine the societal impact of disinformation. For Benkler et al., it was the interaction of television, radio, independent websites, and social media within a US 'right wing media ecosystem', that best explains the election of Donald Trump.[66] Jamieson claims that Russian 'cyberwar' activities were the significant factor, but blames a complex combination of the press, social media, the presidential candidates, and partisans on both sides for amplifying Russian efforts.[67]

That the spread of misinformation involves the complex interaction of multiple actors is also shown in the UK study of how Ibuprofen came to be seen as a dangerous treatment for COVID-19.[68] The study shows in impressive detail how a combination of social media and traditional media activity, informal rumours and official medical sources, spread incrementally the unsubstantiated claim that Ibuprofen was unsafe. However, the fact that the authors feel the need to name a new category termed 'complex misinformation' to describe this process appears

63 I. Rogstad, 'Is Twitter Just Rehashing? Intermedia Agenda Setting Between Twitter and Mainstream Media', *Journal of Information Technology & Politics* 13, Nº 2 (2016): 142–58.
64 Ibid.
65 Chadwick, *The Hybrid Media*; Chadwick et al., 'Do Tabloids'; U. Mejias, and N. Vokuev, 'Disinformation and the Media: The Case of Russia and Ukraine', *Media, Culture & Society*, 39, Nº 7 (2017): 1027–42.
66 Benkler et al., *Network Propaganda,* p. 384.
67 Kathleen Jamieson, *Cyberwar: How Russian Hackers and Trolls Helped Elect a President – What We Don't, Can't and Do Know* (New York: Oxford University Press, 2018).
68 Crime and Security Research Institute, 'Rumours'.

symptomatic of how oversimplistic responses to disinformation have been. The spread of mis/disinformation is always complex, because communication flows are complex, especially in the Digital Age. It is our responses to it, usually by fixating on social media, that have been too simplistic.

Moving disinformation research offline is also important, because it is not clear whether online or offline disinformation has a greater effect on political engagement.[69] In 2018, Reuters found that 'there is little difference in self-reported exposure to misinformation between those that mainly consume news offline and those that mainly consume news online'.[70] Focusing only online, because digital networks are the entry points hostile foreign actors use to spread disinformation, is understandable but limits the ability to discover where, how, and why disinformation generates societal impact in terms of trust and social cohesion. As Benkler et al. caution, 'it is critical not to confound what is easy to measure (Twitter) with what is significantly effective in shaping beliefs'.[71] Policy approaches to counter disinformation would benefit from a more multidimensional approach to addressing the issue. In this respect, the European Commission's report into disinformation provides a useful way forward in highlighting how political actors, news media, digital media, and citizens can all contribute to disinformation's impact, and therefore to a solution.[72]

2. Examine forms of disinformation other than false content more systematically

Most political science research on disinformation's impact focuses on *false content* rather than on more nuanced forms of disinformation. For quantitative research examining disinformation spread online, a true/false dichotomy is useful for dividing data cleanly, especially when using headlines as the unit of analysis. Such studies are effective in demonstrating how 'true' and 'false' content spreads differently online,[73] although by design they can say little about societal impact. They also underplay the diverse forms of disinformation found in the contemporary media ecology.

69 Tucker et al., *Social Media.*
70 Newman et al., *Reuters Institute*, p. 39.
71 Benkler et al., *Network Propaganda*, p. 384.
72 European Commission, *A Multidimensional.*
73 Silverman, 'This Analysis'.

DOI 10.30966/2018.RIGA.8.3.

However, other forms of disruptive information have begun to receive greater attention. This is important, because evidence suggests that many disinformation campaigns are becoming more subtle and harder to detect. Rather than spreading objectively verifiable falsehoods, campaigns are increasingly based on 'soft facts' comprised of malleable information whose provenance is uncertain and thus harder to debunk.[74] Frameworks, such as that produced by the non-profit organisation First Draft, now move beyond false or 'fabricated' content to examine other forms of 'information disorder' such as satire, false connections, misleading content, false context, imposter content, and manipulated content.[75] This conceptual broadening is useful. It highlights a far more subtle range of disinformation. It also shows how social media is only a small part of the issue. Many of these have long been common in traditional media. False connection—such as when a headline does not match the content of an article—can deceive individuals, as can, for example, misleading content that uses statistics highly selectively to produce a distorted impression. False context can also mislead, whereby genuine content is used in a different context.[76] Classic examples have recently been found in anti-immigration media coverage. This typically claims a given country faces excessive immigration, but alludes to this by using images of (typically non-white) immigrants at the borders of other countries.

There have been egregious examples of these different forms of disinformation in British politics in recent elections. During the British general election televised debate on 19 November 2019, the Conservative Party relabelled its official Twitter account to '@factcheckUK'.[77] This is a prime example of 'impostor' content: a political party trying to make its counterclaims more credible by making them look like they come from an impartial fact checking service.[78] Indeed this suggests an evolution in disinformation tactics requiring further research—the fraudulent use of counter-disinformation tactics such as fact-checking services to try and enhance credibility. First Draft also reported that between 1 and 4 December 2019, in the penultimate week of the campaign, 88% of Conservative Party Facebook adverts contained suspect information,

74 Martin Innes, 'Soft Facts and Digital Behavioural Influencing After the 2017 Terror Attacks', *CREST Research*, 2020. [Accessed 18 May 2020]
75 Claire Wardle, 'Fake News: It's Complicated', *First Draft*, 16 February 2017. [Accessed 14 December 2019]
76 Ibid.
77 Laurence Dodds, 'Twitter Accuses Conservatives of "Misleading" Voters by Posing as Fact-checking Account During Election Debate', *The Telegraph*, 20 November 2019. [Accessed 17 December 2019]
78 Wardle, 'Fake News'.

compared to 6.7% by the Labour Party.[79] These were mostly misleading rather than false, mainly concerning flawed statistical calculations of manifesto promises.

A further reason for more research to consider multiple forms of disinformation is that false content is not the main form of disinformation citizens perceive. As Ipsos MORI have shown globally, citizens' estimations of immigration or spending levels are often wildly inaccurate.[80] When asked why, citizens answer that politicians mislead people (52%), the media misleads people (49%), or social media misleads people (41%). This reveals a disparity:

> While politicians and the media often talk about 'fake news' in terms of Russian propaganda or for-profit fabrication by Macedonian teenagers, it is clear that audience concerns are very different, relating to different kinds of deception largely perpetrated by journalists, politicians, and advertisers.[81]

Just because citizens see disinformation differently from academics or policymakers does not mean these are the areas where disinformation has greatest behavioural impact. Nevertheless, if misleading content from traditional sources is having far greater impact on public perceptions, it shows the potential limitations of social-media-based policy responses.

Overall, the growing focus on identifying different forms of disinformation is welcome. It would be helpful to extend this to consider systematically how the *impact* of disinformation might vary depending on the form it takes.

British Electoral Disinformation in a Multidimensional Perspective

Considering traditional as well as social media, and multiple forms of disinformation apart from false content, provides a stronger foundation to assess disinformation's impact and construct policy countermeasures. Focusing on any of these in isolation will miss key sources of impact. It risks fixation on the apparent novelty of short-term falsehoods spread on social media, when significant impact may require the interaction of these activities with longer-

79 Alastair Reid, and Carlotta Dotto, 'Thousands of Misleading Conservative Ads Side-step Scrutiny Thanks to Facebook Policy', *First Draft News*, 6 December 2019. [Accessed 17 December 2019]
80 Ipsos MORI, 'Fake News, Filter Bubbles and Post-Truth are Other People's Problems', 6 September 2018. [Accessed 13 February 2019]
81 Newman et al., *Reuters Institute*, p. 20.

term misleading information within traditional media, and offline interactions within societies.

The importance of considering these together can be seen in British election campaigns in recent years, but also in some UK citizens' responses to the COVID-19 outbreak. First, the Brexit referendum illustrates the benefits of moving beyond false content to study multiple forms of disinformation. British citizens replicate global findings in being just as concerned about misleading content, 'when facts are spun or twisted to push a particular agenda' (59%) and poor journalism, including factual mistakes, misleading headlines, and clickbait (55%), as they are by false stories (58%).[82] However, they report coming across misleading content or 'spun' content far more often (42%) than false content (15%).[83] This suggests that British citizens diagnose 'the problem' of disinformation very differently from the government's *Online Harms White Paper*.[84] Citizens do not see disinformation's spread on social media as the main issue. They see misleading information as a routine part of everyday politics among politicians and traditional media.

Other research corroborates citizens' perceptions that misleading (rather than false) content was the more prominent form of disinformation in the Brexit referendum campaign. As Busby et al. describe, 'unlike the US election, the most misleading content didn't come from newly created websites or automated accounts'.[85] Instead, disinformation came from 'misleading headlines, graphics and statistics from the mainstream press, political parties and hyper-partisan websites'.[86]

Similar dynamics characterised the 2019 General Election. Marchal et al. found that only 2% of Twitter links shared during their campaign sampling period came from what they described as 'junk news' sites that 'deliberately publish misleading, deceptive or incorrect information purporting to be real news'.[87] Only 0.1% was identified as Russian 'propaganda'. In contrast, 57% of

82 Ibid.
83 Ibid., p. 20.
84 DCMS, *Online Harms*.
85 Mattha Busby et al., 'Types of Misinformation During the UK Election', *First Draft*, 23 June 2017. [Accessed 3 January 2020]
86 Ibid.
87 N. Marchal et al. (b), 'Junk News and Information Sharing During the 2019 UK General Election: Online Supplement to Data Memo 2019.4, p.2 (Oxford: Oxford Internet Institute, 2019). [Accessed 20 December 2019]

shared content came from professional, established news sites.[88] The greater prominence of misleading content has been corroborated. Of the 'junk news' sample, 'rather than peddling entirely made-up facts, nearly every story in this sample spun reporting by more established outlets—often distorting or exaggerating the truth—serving ideological agendas in the process'.[89] This further reinforces Chadwick et al.'s finding that sharing tabloid content was most strongly correlated with spreading dis- or misinformation during the 2017 election.[90] Marchal et al.'s analysis suggests a two-phase process may be occurring, whereby 'traditional' media outlets post misleading content, then 'junk news' outlets exaggerate this further.[91] Still, what Marchal et al. describe as 'junk news' websites comprise a small fraction of UK news sharing. These examples suggest longer term, systemic issues within the British media ecology that require deeper examination.

COVID Conspiracies

The COVID-19 pandemic, and the British public's response to it, also highlight the importance of a multi-dimensional approach to disinformation. As mentioned earlier, in March and April 2020, small groups of British citizens began to vandalise and in some cases destroy 5G telecommunications masts, based on the spurious belief that they are being used to spread coronavirus. Superficially, the idea that 5G masts might be spreading a biological pathogen seemed so ridiculous to many that early media and government commentary attributed it to 'crazed' and 'crackpot' social media activity. The government's response reflected a similar assumption—to engage with social media companies to get such content removed.[92]

Criminal damage is obviously unacceptable, and therefore efforts to impede the spread of ideas that encourage it are obviously positive. However, focusing only on social media's role obscures far greater complexity. The theory actually originated, according to Temperton, on traditional media, in a Belgian television interview in January 2020.[93] Only later was this picked up by various anti-5G

88 N. Marchal et al. (a), 'Junk News and Information Sharing During the 2019 UK General Election' (Oxford: Oxford Internet Institute, 2019), p.3. [Accessed 20 December 2019]
89 Ibid., p. 5.
90 Chadwick et al., 'Do Tabloids'.
91 Marchal et al. (a), 'Junk News'.
92 Mikey Smith, 'Vandalism of 5G Masts over "Crazed" Coronavirus Theory "Putting Lives at Risk"', *The Mirror*, 6 April 2020.
93 James Temperton, 'How the 5G Coronavirus Conspiracy Theory Tore through the Internet', *Wired*, 6 April 2020. [Accessed 24 April 2020]

Facebook groups, conspiracist website Infowars, and RT (*Russia Today*), where it added to the significant increase in disinformation related to COVID-19 from Russian sources.[94] The theory itself also had an apparent basis in prior academic research.[95] A significant catalyst was that influential celebrities promoted the conspiracy, either as deliberate disinformation, or unwitting misinformation. In the UK, morning television presenter Eamonn Holmes was censured for asking for more evidence to debunk the conspiracy, which was interpreted by some as him implying that it might be true.[96] In other words, the interaction of traditional and social media, academic research and celebrity influencers, domestic and external actors, is responsible for the theory's spread. And while fixating on the social media aspect, the offline interactions that led everyday citizens to decide to risk prosecution to destroy masts are missed—as they often are in disinformation research.

While at face value the 5G conspiracy theory seemed outlandish and 'bizarre' to many commentators, that many British people might believe it is not as implausible as early observers suggested. As Scheufele and Krause summarise, people are more likely to believe information if it 'appears to follow a logical narrative, that comes from a source they perceive to be "credible", that is consistent with their pre-existing values and beliefs, and that seems to be something that other people believe'.[97] For particular audiences, the 5G conspiracy theory achieves these more easily than many might expect. Seen in isolation, its individual elements do not seem extreme—they merely follow currents in traditional media coverage in the mid- and long term.

The idea that devices emitting radio waves or microwaves can damage health has long been prominent in British society, whether attributed to phone masts, microwaves, and other devices emitting electromagnetic radiation. That they might cause cancer is the typical focus; an idea believed by 35% of British people in 2018.[98] A cursory Google search reveals dozens of media articles going back at least to the 1980s speculating on these issues. These ideas long pre-exist the

94 Ibid.
95 Lewis, '5G is Not'.
96 Chris Baynes, 'Eamonn Holmes Fans Flames of 5G Coronavirus Conspiracies By Saying "It Suits State Narrative" for Media to Dismiss Them', *Independent,* 2020. [Accessed 24 April 2020]
97 S. Lewandowsky et al., 'Misinformation and Its Correction: Continued Influence and Successful Debiasing', *Psychological Science in the Public Interest*, 13 (2012): 106–31; D. A. Scheufele, and N. Krause, 'Science Audiences, Misinformation, and Fake News', *Proceedings of the National Academy of Sciences*, 116, N° 16 (2019): 7662–69.
98 L. Shahab et al., 'Prevalence of Beliefs about Actual and Mythical Causes of Cancer and Their Association with Socio-Demographic and Health-Related Characteristics: Findings from a Cross-Sectional Survey in England', *European Journal of Cancer*, 103 (2018): 308–16.

mobile phone, let alone social media.[99] Trying to remove such content from social media is therefore a partial response, at best.

In parallel, the idea that China represents a security threat is an increasingly prominent frame in British traditional media in recent years.[100] Before COVID-19 this mainly focused on China's role in supplying 5G technology or constructing UK nuclear power plants, with the concern that these could be used for surveillance, or to undermine British critical national infrastructure.[101] Ongoing criticism of China's response to COVID-19 is likely to keep the perception of a 'China threat' prominent in the West. The 'China Threat' frame and the 'telecommunication mast harm' frame can even be combined with the idea that the virus's emergence in Wuhan corresponds with the city's 5G rollout, helping some find the narrative even more plausible.

The 5G conspiracy theory is arguably best seen not as a novel manifestation of the online harms caused by social media, but as an old story with a new spin, spreading in unusually febrile circumstances. To this must be added the role of political actors: in this case, recurrent calls by the populist Right in the UK—and, on occasion, elements of the Conservative Party—for citizens to dismiss 'expert' advice. This was encapsulated by Michael Gove's notorious quotation that British people had 'had enough of experts' (even if this only partially represented what Gove said).[102] Gove is one of the senior government figures directing the government's response to COVID-19.

British people are currently experiencing the emotional uncertainty of a global pandemic. Some will have been primed by years of media coverage advocating distrust of government messaging, distrust of academic expertise, and ideas such as phone masts are damaging and the Chinese are a growing threat. None of these seems especially 'crazed' or 'crackpot' on its own. Consequently, the inference that 5G masts are a threat to be destroyed is actually not as outlandish as it might seem. As a narrative, its plot has some temporal and causal coherence, which makes some find it plausible, however criminal the response is.

99 BBC, 'Phone Masts: A Health Risk? 13 September 2004. [Accessed 24 April 2020]
100 See for example R. Mendick, 'China poses greatest threat to UK as global superpower, claims new study,' Telegraph, 2019. [Accessed 24 April 2020]
101 Thorsten Benner, 'Britain Knows It's Selling Out Its National Security to Huawei, Foreign Policy', F*oreign Policy*, 31 January 2020. [Accessed 24 April 2020]
102 H. Mance, 'Britain Has Had Enough of Experts, Says Gove', *Financial Times,* 2016. [Accessed 24 April 2020]

What this account does not explain is why these beliefs outweigh others people already hold strongly. Understanding this better would enhance future disinformation research. Currently, most disinformation research on a given topic will highlight at some point that the topic is not new. This is logically necessary, since many theories of disinformation assume it is believed because of confirmation bias, whereby people are more likely to accept information that corresponds to what they already believe.[103] Often research just raises these prior beliefs as a caveat, and then empirical research selects one social media platform (mostly Twitter) and quantifies disinformation spread.

In contrast, relatively little research on disinformation seeks to explain in detail the multiple, contrasting beliefs people hold that are relevant to a given topic, and why one wins through. The person who believes the 5G conspiracy theory probably also believes ordinarily that doctors should be trusted on medical matters. They have likely had dozens of infections, which they ordinarily attribute to conventional medical explanations. Why the conspiracy theory outweighs these long-held views in a given instance requires deeper, qualitative research into individuals' belief systems and information-sharing behaviours.[104] This research needs to be culturally specific. Attitudes towards disinformation, and which sources are trusted and which are not, will vary in different contexts. A multidimensional, longer-term view would greatly inform disinformation research. It would take it far beyond the spread of such content online, and beyond the efforts to compel social media companies to reduce or remove such content.

Overall, the examples here corroborate Benkler et al.'s call to embrace more sophisticated approaches, focusing on the 'structural, not the novel', on 'long-term dynamic[s]', not the 'disruptive technological moment', and on the interaction between media rather than on a single platform or the internet.[105] The more these multiple elements are factored into research designs and policy interventions, the better we will understand the impact of disinformation and how to address it.

103 R. S. Nickerson, 'Confirmation Bias: A Ubiquitous Phenomenon in Many Guises', *Review of General Psychology* 2, Nº 2 (1998): 175–220.
104 For an example of incorporating in depth interviews to explore disinformation-related behaviours further, see Edson C. Tandoc et al., 'Diffusion of Disinformation: How Social Media Users Respond to Fake News and Why', *Journalism*, 21, Nº 3 (2020): 381–98.
105 Benkler et al., *Network Propaganda*, p. 384.

3. Study disinformation's impact in a broader range of cultural contexts.

That British citizens perceive misleading information from traditional media and politicians as more prominent than false content on social media illustrates that disinformation's origins and impact are subject to cultural variation. Research into disinformation campaigns in other polities is growing, as tactics perceived to have succeeded in one context are tried elsewhere. The Oxford Internet Institute has identified 70 countries where disinformation campaigns have taken place and that number is increasing.[106]

Such studies illustrate well the proliferation of the varied techniques used to *spread* disinformation. What we now need to understand is how cultural variations shape the *impact* disinformation might have on audiences. Research on this is limited but is extremely important.

Western liberal democratic political elites may be concerned about disinformation undermining democratic processes, but publics elsewhere appear less concerned. Citizens in some countries report viewing disinformation very differently. BBC-commissioned research in Kenya and Nigeria has found that attitudes towards disinformation are not uniformly negative. Publics in these countries are extremely concerned about disinformation and misinformation that might incite violence or cause personal or financial harm. However, they deem disinformation spread by politicians far less important, and too abstract to worry about.[107]

Levels of trust in social media are far higher in some countries than in others—while in 2019 only 12% of Britons claimed to trust information on social media, 52% claimed to in Saudi Arabia, India, and Thailand.[108] As mentioned earlier, disinformation in the form of false rumours spread on Facebook and WhatsApp have appeared to precipitate revenge killings in India and Nigeria.[109] In northwest Pakistan in April 2019, a polio vaccination centre was burnt down following dis/misinformation that the vaccine was

106 Davey Alba and Sheera Frenkel, 'Russia Tests New Disinformation Tactics in Africa to Expand Influence', *The New York Times*, 30 October 2019. [Accessed 18 December 2019]; Samantha Bradshaw and Phillip Howard, *The Global Disinformation Order: 2019 Global Inventory of Organised Social Media Manipulation*, (Oxford: Oxford Internet Institute, 2019). [Accessed 23 December 2019]
107 Chakrabarti et al., *Duty, Identity.*
108 Alex Hern (a), 'Britons Less Trusting of Social Media Than Other Major Nations', *The Guardian*, 3 May 2019. [Accessed 3 May 2019]
109 Chakrabarti et al., *Duty, Identity.*

causing fainting and vomiting.[110] Videos spread on Twitter appeared to contribute to the panic. However, the relative contribution of online and offline communication networks in that cultural context needs to be better understood, since suspicion of polio vaccination has long been widespread in the region.[111]

Cultural variations in how publics ethically evaluate disinformation also require further research. In the BBC study, many Indian respondents reported feeling obliged to spread disinformation for nation-building or regime-bolstering purposes.[112] They saw that it could perform a positive societal function to boost the nation in certain circumstances. This contrasts strongly with the implicit Western perspective that spreading disinformation is inherently subversive. Far more research in different contexts is necessary to uncover these variations, including in the UK, where public attitudes to disinformation and those who spread it remain poorly understood.

4. Re-examine language used to describe disinformation and its impact

Policy responses and research into disinformation's societal impact must re-consider the language used to describe it. Recent policy approaches in liberal democracies have tended to begin with disinformation injected into the body politic, often by external actors. It is treated as a biological 'pathogen' to which certain groups are 'vulnerable'. The task becomes to find these 'communities' and to 'inoculate' them through programmes such as improved media literacy. This would make society more 'resilient'. Rushkoff et al. exemplify this metaphorical approach in their discussion of the spread of memes:

> Virulent ideas and imagery only take hold if they effectively trigger a cultural immune response, leading to widespread contagion. […] The urgent question we all face is not how to disengage from the modern social media landscape, but rather how do we immunize ourselves against media viruses, fake news, and propaganda?[113]

110 Joe Wallen, '25,000 Children in Pakistan Rushed to Hospital after Spread of False Polio Vaccine Rumours', *The Telegraph*, 23 April 2019. [Accessed 18 December 2019]
111 Ibid.
112 Chakrabarti et al., *Duty, Identity.*
113 D. Rushkoff, D. Pescovitz and J. Dunagan, 'The Biology of Disinformation: Memes, Media Viruses and Cultural Inoculation', Institute for the Future, 2018, p. 3. [Accessed 20 December 2019]

> A virus doesn't make us sick unless we lack an immune system capable of recognizing the shell and then neutralizing the code. Until we do that, the virus replicates, and our immune system goes berserk, giving us the fever, chills, congestion, or vomiting—which manifest in culture as media confusion, Twitter wars, protests in the street, sleepless nights, and 'homegrown' terror. None of this is spontaneous or unpredictable. It's all just viral memetics in action.[114]

The idea that increased critical analysis reduces susceptibility to disinformation is not without merit. Meta-analyses suggest that, despite the limited effectiveness of specific campaigns, improved critical media and digital literacy are likely to improve people's ability to identify disinformation.[115] The problem with employing biological metaphors in this context is that if used uncritically they oversimplify how communication works. Metaphorically, biological understandings of disinformation spread bear similarity to discredited, centuries-old, 'hypodermic' theories of communication whereby passive individuals are injected with information that they then internalise.[116] The idea that information exposure 'triggers' a cultural 'immune response' risks oversimplifying the process of persuasion, making it seem more automatic and easy than it is. It implies too linear a connection between spreading 'viral' content, persuasion, and behavioural impact. Fact-checking and media literacy campaigns oversimplify similarly, assuming that just showing someone that news is inaccurate will prevent them from sharing it.[117]

Such biological metaphors are still used uncritically in academic research,[118] though this is less common now. Media and communication research in particular have long recognised how oversimplistic such approaches to communication are. Still, the oversimplification persists in media coverage and in policy responses to dis- and misinformation. This was shown early in the COVID-19 pandemic, with the World Health Organisation expressing concern about an

114 Ibid., p.6.
115 Monica Bulger, and Patrick Davison, 'The Promises, Challenges and Futures of Media Literacy', *Data and Society*, 21 February 2018. [Accessed 21 December 2019]; S. Jeong, H. Cho and Y. Hwang, 'Media Literacy Interventions: A Meta-analytic Review', *Journal of Communication*, 62 (2012): 454–72.
116 A. Marwick, 'Why Do People Share Fake News? A Sociotechnical Model of Media Effects', *Georgetown Law Technology Review*, 2 (2018): 474–512.
117 Ibid., p. 477.
118 J. Zarocostas, 'How to Fight an Infodemic', *The Lancet*, 395, Nº 10225 (2020): 676.

'infodemic' spreading in parallel with the disease itself.[119] Supposedly there was a simultaneous 'global epidemic of misinformation' that 'poses a serious problem for public health' and 'goes faster and further, like the viruses that travel with people go faster and further'.[120]

Such analogies make for catchy headlines—and they do allude to a valid concern. However, they perpetuate oversimplified understandings of how dis- and misinformation spread and exert an impact on beliefs and behaviours. They may also lead to an overestimation of how straightforward it might be to change people's behaviour through counter-disinformation campaigns. Marwick's US study found that some people shared partisan disinformation despite knowing it was false, because their priority was to signal shared identity with others.[121] Within the frame of 'culture wars', increasingly invoked to describe contemporary politics, it may be that people are sharing dis- or misinformation more to provoke or 'trigger' their perceived opponents rather than because they actually believe it. Such examples suggest a far more complex web of online and offline, cognitive and social interactions that mediate whether people share dis- or misinformation, and whether it shapes beliefs or behaviours.

To be fair, Rushkoff et al., while continuing to claim that a biological approach to disinformation is useful, acknowledge that persuasion is more complex. Complicating their own communication model, they explain that inoculation efforts also require an understanding of 'the society, culture, economics, technologies, and other factors that allow particular memes, and memes in general, to thrive'.[122] Understanding all of these elements would certainly help counter disinformation, memetic or otherwise. However, this more holistic approach is far from the more common understanding of inoculation as a refined, targeted approach to a particular pathogen—as shown by the description of COVID-19-related misinformation as an 'infodemic'. This makes the metaphor less helpful overall.

When biological metaphors concerning 'inoculation' are used oversimplistically to describe disinformation responses, they also risk downplaying human agency and the importance of trust in the communicator. Individuals are susceptible to (dis)information that confirms their existing views. If they are not interested in a

119 Jingling Hua, and Rajib Shaw, 'Corona Virus (COVID-19) "Infodemic" and Emerging Issues through a Data Lens: The Case of China', *International Journal of Environmental Research and Public Health*, 17, Nº 7 (2020): 2309.
120 Zarocostas, 'How to Fight'.
121 Marwick, 'Why Do People', p. 505.
122 Rushkoff et al., 'The Biology', p. 10.

piece of news, however true, they will likely not engage with it. The persuasiveness of disinformation depends on the knowledge and beliefs people bring to their interaction with information. Second, unlike the spread of an organic pathogen, whether information 'infects' someone is mediated by their trust in the source. This is very different from implying there is a general disinformation pathogen that is 'out there', against which individuals or cultures can be inoculated.

Solutions based on oversimplistic understandings of 'inoculation' risk ignoring the fact that improved media literacy will make people more critical of *all* information, including that which comes from government. The ideal liberal democratic outcome of a media literacy campaign would presumably be for citizens to be more critical of information that seems 'anti-democratic', in the sense that it undermines society, electoral processes, and social cohesion, or advocates alternative systems of government. Conversely, presumably it would be ideal if citizens were *less* critical of information that upholds democratic values and processes. The ideological assumption that liberal democracy is a preferable form of government makes it seem common sense that, if people are made more critically aware, they will naturally reject anti-democratic information when they find it.

Media literacy, seen through the lens of the 'inoculation' metaphor, is too blunt a tool to do this. If one insists on using medical metaphors to describe media literacy, it is more a broad-spectrum antibiotic that attacks everything, good and bad, rather than a vaccine against a specific strain of (dis)information that the state deems invidious. Media literacy, after all, is 'a form of critical thinking that asks people to doubt what they see'.[123] As Danah Boyd asserts about the man who conducted a shooting at the restaurant implicated in the (false) Pizzagate conspiracy in the US, 'what he was doing was something that we've taught people to do—question the information they're receiving and find out the truth for themselves'.[124]

Improved media literacy is theoretically healthy for democracies. More critically aware citizens should be better able to reason their way to optimal solutions for social issues.[125] However, at a point where trust in government and traditional media is low, improved media literacy will place an even more critical spotlight on how governments communicate, and may further undermine trust in news media more generally.

123 Danah Boyd, 'You Think You Want Media Literacy… Do You?', *Medium*, 9 March 2018. [Accessed 13 December 2019]
124 Ibid.
125 Jacobs et al., *Talking Together*.

Strategic communications around the COVID-19 crisis in the UK illustrates this well. Far more prominently than the 5G conspiracy theory, both traditional media and government communications are presenting citizens with a variety of different models and calculations about how the disease will spread and how many have died 'of' it or 'with' it. Daily coverage focuses on the contention between different experts about whose figures are more accurate. In other words, a public debate is going on about how scientific data is constructed and interpreted. This seems positive—it has the potential to make people more critically aware of the selectivity and interpretivity inherent in data that quantitative researchers might prefer to present as 'objective'. But this could go both ways—making people more sceptical of such data may make them distrust all scientific data. Indeed, this is a recognised tactic when political actors seek to discredit scientific research generally—based on the claim that if scientists cannot agree, all of their data must be similarly unreliable. Climate change denial is a prominent recent example. These elements of the contemporary communication environment are too complex to be resolved simply by improving media literacy.[126]

5. Examine disinformation's impact on trust and social cohesion multidimensionally

Two areas of concern regarding disinformation's impact are its effects on trust and social cohesion. With disinformation's impact typically assumed rather than demonstrated, these require robust and extensive research. The following sections suggest how this research might proceed.

Concern about disinformation is inextricably tied to a perceived trust crisis in liberal democracies. This concern predates fears about disinformation. Successive polls identify declining trust in politicians, government, organised religion, health services, police, and the media.[127] For some the crisis is existential—if disinformation can undermine trust between people and democratic governments, they fear people might reject the existing political order in favour of an alternative.[128]

126 Silvio Waisbord, 'Truth Is What Happens to News: On Journalism, Fake News, and Post-Truth', *Journalism Studies*, 19, Nº 13 (2018): 1866–78.
127 For instance see Edelman Trust Barometer Global Reports, [Accessed 1 March 2020]; Gallup's ongoing Trust in Government analysis [Accessed 1 March 2020]; Pew Centre for Research Global Attitude Surveys. [Accessed 1 March 2020].
128 Watts, *Whose Truth*.

To research disinformation's impact on trust, we must re-evaluate how we think about trust. Trust involves an acceptance of vulnerability in the expectation of certain outcomes and behaviours in a given situation.[129] It is a social process we rely on daily—trusting doctors to maintain our health, utilities companies to deliver us clean food and water, etc. It is widely believed that democratic governments rely on people's trust to govern effectively.[130]

Accordingly, when commentators identify a decline in trust, they see a problem to be tackled.[131] This reflects the common-sense assumption that there is an overall quantity of trust in society that should be increased. This is wrong. First, more trust does not necessarily mean a better society. Balance is needed. Too little trust renders society ungovernable. Whereas if people trust political leaders too much, they may help bring about tyranny. Without some distrust, governments will not be held to account by their citizens. Democracy therefore needs both trust and distrust. They are not opposite ends of a spectrum but separate concepts that co-exist.[132] Ronald Reagan's maxim of 'trust but verify' in nuclear negotiations captures this well: one needs both trust and distrust in many instances. This should be reflected in research into disinformation's impact, not least in designing research to evaluate the many survey indicators of trust.

Similarly, with disinformation, the issue is not a lack of trust in society.[133] From the perspective of the liberal democratic state, there is too much trust in some information sources and too little in others.[134] 'Fake news' is *more* trusted today than before and no one suggests we should encourage this.[135] Fear of social media 'echo chambers' implies too much trust in sources of information that confirm pre-existing ideological views, and too little in more 'objective' sources. Increasing levels of trust in society is not the problem. What is needed is better trust, not more trust.

129 F. Granelli, 'What Does it Mean for a Communication to be Trusted?', *Defence Strategic Communications*, 5 (2018): 171—214.
130 J. R. Clark, and Dwight Lee, 'The Optimal Trust in Government', *Eastern Economic Journal*, 27, Nº 1 (2001): 19—34.
131 Watts, *Whose Truth*.
132 Granelli, 'What Does it Mean'.
133 Examples such as Airbnb, TaskRabbit, RelayRides, Getaround, Fon, and Lending Club show there is still plenty of trust in society. See R. Botsman, *Who Can You Trust? How Technology Brought Us Together—and Why It Could Drive Us Apart* (London: Penguin, 2017).
134 Ibid.
135 Granelli, 'What Does it Mean'.

DOI 10.30966/2018.RIGA.8.3.

Better trust would mean more trust being placed in sources of verifiable, factual information, and less in actors deliberately attempting to disinform through false or misleading content. Better trust is also a two-way process. Governments calling for citizens to trust them will have little success unless they also communicate that they trust their people. This is especially challenging with counter-disinformation campaigns. A campaign asking that people be more critical of information sources is easily read as the government saying they do not trust citizens to interpret information accurately. This creates a significant challenge for practitioners designing counter-disinformation campaigns. Telling people they aren't critical enough when dealing with information is a message few will accept (even if it is true).

The relationship between trust and disinformation depends on the disinformation's source and content. There are different types of trust: personal, social, general, systemic, and institutional.[136] For governments concerned about disinformation, two are especially pertinent. The first is disinformation that could undermine *institutional* trust between state and citizen. This might suggest the government is lying—a typical claim in conspiracy theories—or failing to provide security and prosperity. The second is disinformation aimed at undermining *interpersonal* trust between citizens in society. By exploiting inequalities and fissures, it is feared that disinformation is undermining social cohesion, making communities less 'resilient' against threats.[137]

Disinformation can attack institutional and interpersonal trust simultaneously. The Christchurch attacker, Brenton Tarrant, cited the 'White Genocide' conspiracy theory that Western governments are complicit in the 'Islamisation' of their societies.[138] Assuming this is untrue and therefore dis- or misinformation, this potentially undermines *institutional* trust by suggesting that government is failing to protect people from a perceived threat. It may also weaken *interpersonal* trust between Muslims and the rest of society. Similarly, disinformation around Brexit might undermine trust between citizens and government, between citizens and other citizens whom they accuse of voting to impoverish them, and between citizens and media outlets they consider to be promoting disinformation about the issue.

136 W. Mishler, and R. Rose, 'What are the Origins of Political Trust? Testing Institutional and Cultural Theories in Post-Communist Societies', *Comparative Political Studies*, 34, N° 1 (2001): 30–62.
137 Tucker et al., *Social Media.*
138 Lizzie Dearden, 'New Zealand Attack: How Nonsensical White Genocide Conspiracy Theory Cited by Alleged Gunman is Spreading Poison Around the World', *Independent*, 16 March 2019. [Accessed 16 January 2020]

Being more specific about forms of trust is essential because increasing trust in one relationship may undermine trust in another. If you convince people to trust the emotional instinct of a friend over expert or official information, they may trust official sources less.

Institutional trust and disinformation in the 2019 British General Election

The risk of disinformation undermining institutional trust between states and citizens was highlighted by the 2019 British General Election campaign. Early commentary highlighted the apparent impunity with which the main parties—but according to analysts primarily the Conservative Party—employed overt disinformation to secure votes.[139] This was despite their erroneous claims being swiftly highlighted and debunked by fact-checking services, news outlets, and citizens on social media.

To add context, in early 2019 the Theresa May administration introduced a public-health style counter-disinformation campaign because of concern about the UK being undermined by disinformation from hostile external actors, especially Russia. With the tagline 'Don't Feed the Beast', the aim was to encourage people to be more cautious in what they share because 'things aren't always what they seem online'.[140] Highlighting this is useful, although looking closer, the campaign risked replicating the limitations of thinking about disinformation that we identified earlier. Not only does it focus exclusively on information shared online, the examples it cites are of 'hoax stories' and 'false accusations'.[141] The campaign offers 'SHARE' as an acronym citizens can remember to help them avoid 'feeding the beast' of online disinformation. Social media users are invited to double check the **S**ource of information, read beyond the **H**eadline, **A**nalyse factual content to check if it is true, check whether any content has been **R**etouched or edited, and look for **E**rrors in URLs, bad grammar, or awkward layouts.[142] This checklist would be most useful for 'fake news' websites masquerading as legitimate news sources, but as we have already established, this is a small fraction of UK news. Moreover, the campaign appears to evade addressing the main disinformation concerns of

139 Joe Mayes, and Kitty Donaldson, 'U.K. Plans to Review Rules After 2019 Campaign of Lies and Smears', Bloomberg, 10 December 2019. [Accessed 19 December 2019]; Reid and Dotto, 'Thousands of Misleading'.
140 'Share Checklist: Don't Feed the Beast'.
141 Ibid.
142 Ibid.

British citizens—misleading disinformation from established media outlets and politicians, both offline and online.

The 2019 election campaign was remarkable for how flagrantly these concerns were violated by the main political parties, but most frequently by the incumbent Conservative Party.[143] Consider the following examples, using the government's own SHARE framework:

> **Source**—The Conservative Party relabelled its Twitter account @factcheckUK during a televised debate, giving a false impression that it was a non-partisan, impartial news verification service.
>
> **Headline—**The Liberal Democrat Party published election leaflets masquerading as local newspapers in style, containing graphs that misrepresented them as the only party with a previous vote share large enough to challenge incumbents in various constituencies.
>
> **Analyse**—The fact-checking organisation First Draft found that Labour, the Conservatives, and the Liberal Democrats all published misleading advertising, though by far the most frequent were the Conservative Party. 88% of their most shared online adverts between 1 and 4 December 2019 were coded as containing misleading information, compared to 6.7% for Labour.
>
> **Retouched**—The Conservative Party re-edited a televised interview of Keir Starmer, then the Labour Shadow Brexit Secretary, to remove his answer to a question, giving the false impression that he failed to answer.
>
> **Errors**—Early in the campaign, the Conservative Party adopted what are referred to as 'shitposting' tactics; deliberately posting poorly formatted and low-quality content on the assumption that this would achieve greater spread through the criticism it would attract.[144]

143 Reid and Dotto, 'Thousands of Misleading'.
144 Mayes and Donaldson, 'U.K. Plans'; Reid and Dotto, 'Thousands of Misleading'.

Misleading content and unkept manifesto promises are nothing new during elections. Indeed, during the 2019 campaign, the Brexit Party sought to rebrand their 'manifesto' as a 'contract', because 'everybody knows that a manifesto is little more than a set of vague promises that its authors have no intention of keeping'.[145] Traditional media were accused of spreading misleading disinformation too. The BBC was criticised by all sides for bias towards the other parties, most prominently when they edited out footage of audience laughter at Prime Minister Boris Johnson after he explained the importance of people in power telling the truth.[146]

Even if some of these tactics are not novel, the impunity with which they were employed appears new, at least in the UK. When found out, Conservative Party representatives were unapologetic for rebranding their Twitter account as a fact-checking site, and for editing video footage of the interview with Starmer.[147] Such conduct risks further undermining institutional trust between political parties and the electorate. This is especially probable since early commentary suggests citizens are increasingly aware of disinformation given its prominence in public discourse since the Brexit referendum.[148] What we now need is robust sociological research to examine the impact this behaviour has societally on beliefs and behaviours. Purposefully misleading audiences and then being unapologetic when found out undermines moral codes in many societies. As it is so transgressive, its negative impact seems obvious, although it seems important to substantiate the extent of the damage.

Spreading disinformation could have significant costs to the credibility of the perpetrators, but without knowing more about disinformation's impact, it is difficult to calculate whether the cost of exposure is worthwhile. It may be that electoral disinformation poses limited costs—and therefore has limited effect—because citizens expect politicians to lie in elections anyway. Here the COVID-19 crisis may be revealing in that it might show whether using such flagrant disinformation tactics has significant consequences. On a daily basis, the British government is trying to persuade British citizens that its reported death tolls are accurate. It wants citizens to believe the message that it is

145 Brexit Party, 'Contract with the People', *thebrexitparty.org*, 2019. [Accessed 23 December 2019]
146 BBC, 'BBC Acknowledges "Mistake" in Boris Johnson Editing', *BBC News*, 25 November 2019. [Accessed 23 December 2019]
147 Rob Merrick, 'Tory Minister Says "No One Gives a Toss" About Fake Fact Checker Set Up by Official Party Twitter Account', *Independent*, 20 November 2019. [Accessed 14 January 2020]
148 Mayes and Donaldson, 'U.K. Plans'.

'succeeding' in controlling the epidemic, despite its recent electoral record of using disinformation tactics and admitting it unapologetically. It would be interesting to examine whether citizens consider these recent examples when assessing the credibility of government COVID-19 messaging, or whether their generic, longer-term trust in politicians is more significant.

Interpersonal trust and social cohesion

As well as examining whether disinformation is impacting institutional trust, we know little about whether disinformation is undermining interpersonal trust between citizens in societies. The impact of disinformation on interpersonal trust can be understood as part of the broader issue of social cohesion. Social cohesion loosely describes the 'collective togetherness' of a group, of which interpersonal trust is a core constituent.[149] Cohesive societies appear to possess 'close social relations, pronounced emotional connectedness to the social entity and a strong orientation towards the common good'.[150] Higher social cohesion is thought to make democracies more stable, participative, productive, and resilient.[151]

However, there is a growing perception that social cohesion is deteriorating in the Digital Age,[152] and that disinformation contributes by exacerbating divisions. Little if any research demonstrates measurable effect, though. Social cohesion has subjective (cognitive) and objective (behavioural) elements.[153] Subjective cohesion concerns how far people *perceive* they belong within a given community. Objective cohesion concerns how social cohesion is manifested in *actual behaviours*, for instance community work, memberships of local organisations, or simply interacting with others.[154] The moral panic around disinformation may reflect a decline in *perceived* social cohesion, but it is not clear whether disinformation has altered *objective* social cohesion, i.e. made people behave in a less cohesive way.

149 N. Friedkin, 'Social Cohesion', *Annual Review of Sociology*, 30, Nº 1 (2004): 409—25.
150 D. Schiefer and J. van der Noll, 'The Essentials of Social Cohesion: A Literature Review', *Social Indicators Research*, 132 (2017): p. 592.
151 Joseph Chan, Hong-Po To, and Elaine Chan, 'Reconsidering Social Cohesion: Developing a Definition and Analytical Framework for Empirical Research', *Social Indicators Research*, 75, Nº 2 (2006): 273—302.
152 European Committee for Social Cohesion, *A New Strategy for Social Cohesion*, (Strasbourg: Council of Europe Publishing, 2004). [Accessed 16 January 2020]
153 K. Bollen, and R. Hoyle, 'Perceived Cohesion: A Conceptual and Empirical Examination', *Social Forces*, 69, Nº 2 (1990): 479–504.
154 Ibid.

Happily, both subjective and objective social cohesion may offer indicators to measure change over time. Robert Putnam's work *Bowling Alone* creatively used reduced participation in local bowling leagues as a proxy measure of American societal decline, but this was relevant only in a particular context and time period.[155] Research is needed into appropriate proxies of social cohesion in other countries and contexts.

Identifying behaviour change is ideal, but measuring perceived (subjective) social cohesion remains useful. People who perceive that their social networks are less cohesive may decide to interact less with others, creating a self-fulfilling prophecy. Experimental research on 'affective polarisation'—the dislike of those with opposing views—has shown that people exposed to vitriolic, partisan content online perceive political opponents more negatively.[156] They self-report a reduced willingness to live near, or have a relative marry, someone from across partisan divides.[157] This illustrates one way disinformation could exert behavioural impact, and the potential for experimental research to reveal other mechanisms.

Measuring disinformation's real-world impact on social cohesion is harder as it will be one factor among many. Economic and social inequality, and immigration if poorly managed, can undermine social cohesion.[158] The long-term impact of disinformation must be considered before trying to isolate its short-term impact. Rather than beginning with disinformation that is 'out there' in the media environment, it may be more productive to begin by mapping issues people face at the community level *before* considering what effect disinformation might have.

Research on social cohesion must also reflect the increased complexity of communication in the Digital Age. Our reference to 'social cohesion' contrasts deliberately with 'community cohesion', which we argue is less useful, despite receiving considerable research attention. Communities can be defined as 'place-

155 Putnam measured social capital rather than social cohesion, though the example is still instructive of different proxies of objective social cohesion. R. Putnam, *Bowling Alone: The Collapse and Revival of American Community* (New York: Simon & Schuster, 2000).
156 Elizabeth Suhay et al., 'The Polarizing Effects of Online Partisan Criticism: Evidence from Two Experiments', *The International Journal of Press/Politics*, 23, Nº 1 (2018): 95–115.
157 Ibid.
158 Gianluca Grimalda, and Nicholas Tanzer, *Social Cohesion, Global Governance and the Future of Politics: Understanding and Fostering Social Cohesion*, Think 20 Argentina, (Consejo Argentino para las Relaciones Internacionales, 2018). [Accessed 16 December 2019]

based' or 'interest-based'.[159] A place-based community is one delineated by social relationships within a given territory or neighbourhood. An interest-based community is delineated by a shared sense of belonging and identity among its members, for example a religious community, which need not be place-based.[160] The internet has made it far easier for interest-based communities to proliferate.[161]

Democratic governments have devoted attention to community cohesion but have typically viewed communities as 'geographically limited entit[ies]' in particularly areas or neighbourhoods.[162] Place-based understandings of communities have dominated policy approaches in many countries, especially the perceived (self-) segregation of Muslim communities and the fear that this creates a favourable climate for Salafi-jihadist radicalisation.[163]

This place-based understanding of community is inadequate when considering the complex networks of virtual and physical groups that interact with disinformation. The far right and Alt-Right, for example, cannot be adequately described as place-based communities. The category of 'virtual community' is also too simplistic. Rather, far right groups comprise a network of networks combining longstanding members of fringe and mainstream political parties; anti-Islam activists; certain users of 4Chan, 8Chan, and Reddit; Gamergaters; white supremacists; neo-Nazis; certain men's rights activists; right-wing conspiracy theorists; and various media outlets that promote their causes.[164] These networks do not necessarily imagine themselves as a community. Trust dynamics are embedded in a complex and amorphous patchwork of digital and offline relationships. Their causes may overlap around a specific issue, before reconfiguring ad hoc around a different one. Research into disinformation's impact on social cohesion would ideally factor in this complexity.

159 L. Manzo, and D. Perkins, 'Finding Common Ground: The Importance of Place Attachment to Community Participation and Planning', *Journal of Planning Literature*, 20, N° 4 (2006): 335–50.
160 C. Firth, D. Maye, and D. Pearson, 'Developing "Community" in Community Gardens', *Local Environment*, 16, N° 6 (2011): 555–68.
161 F. Henri, and B. Pudelko, 'Understanding and Analysing Activity and Learning in Virtual Communities', *Journal of Computer Assisted Learning*, 19, N° 4 (2003): 474–87.
162 M. Mahrt, 'Conversations About Local Media and Their Role in Community Integration', *Communications*, 33, N° 2 (2008): 233–46.
163 J. Flint, and D. Robinson, *Community Cohesion in Crisis? New Dimensions of Diversity and Difference* (Bristol: The Policy Press, 2008).
164 Alice Marwick, and Rebecca Lewis, 'Media Manipulation and Disinformation Online', Data and Society, 15 May 2017. [Accessed 18 December 2019]

The Impact of Disinformation: A strategic, multidimensional research and policy agenda

Having advocated a shift in how disinformation is conceptualised and studied, what might subsequent research or policy interventions look like? First, there is a need to embrace complexity. Disinformation is a complex issue—its impact lacks a single cause or solution.[165] Even if novel technologies are not as significant as commonly assumed,[166] the Digital Age has made social relationships more complex as online and offline networks have been layered together. Landscapes of trust and social cohesion have shifted, with horizontal networks of informal online relationships intersecting with existing networks and hierarchies. These fluid and seemingly more fragmented dynamics, combined with the speed of communication flows, increase the difficulty of examining disinformation's impact. Research and policy interventions must embrace this. Reducing the amount of disinformation 'out there' in the communication environment is useful, but will bring limited understanding of its impact.

Our starting assumption is that disinformation exerts impact only if individuals engage with its content. The issues or events it examines must interest audiences, otherwise they will simply ignore it.[167] The 5G coronavirus conspiracy theory will interest some. Others will not engage with it as they have their own beliefs—as with the conspiracy theory that the higher ethnic minority casualty rate in the UK reflects a conspiracy against them. Removing Salafi-jihadist disinformation that claims that COVID-19 is God's retribution against apostates will make no difference to the climate change activist who already believes that it is Nature's response to overpopulation. Focusing on the spread of such content on social media, and how best to remove it or regulate the medium, neglects the nuances explaining the persistence of such beliefs in the first place.

We therefore advocate an event or issue-based approach to studying and countering the societal impact of disinformation. Contrary to existing approaches, this does not begin with disinformation and how to reduce its spread. Rather, it begins with an issue or event and the social networks that it affects. Such an approach might be structured as follows:

1. Identifying an event or issue causing contention. This could be short or long term.

165 European Commission, *A Multidimensional.*
166 Ibid.
167 Tandoc et al., 'Diffusion'.

2. Determining the networks for whom the issue is relevant - they may be physical, virtual or imagined.

3. Mapping the landscape of trust in these networks—which sources of information are trusted and why. This includes both trust in institutions, and interpersonal trust between individuals and within groups.

4. Identifying the tensions and identities within these networks that might be targeted.

5. Only then considering how disinformation and misinformation might exacerbate these tensions.

6. Considering which counter-disinformation activities might be effective.

From a policy perspective, an events-based or issues-based approach offers a more targeted and strategic way to counter disinformation than those that focus on technology platforms used to inject disinformation into society. It offers a more realistic assessment of the impacts of disinformation. One could reduce the amount of disinformation on a given platform but this does not mean it shaped beliefs or behaviours meaningfully. Focusing first on events or issues would also help make governments' counter-disinformation efforts more proactive than reactive. It may be possible to anticipate future political events or issues that might become the target of disinformation. Government strategic communicators can better prepare.

This approach is applicable to both research on the societal impact of disinformation and on counter-disinformation efforts. Research should be multidimensional, mixed-method, online and offline. The impact of dis/misinformation is likely to be easier to measure in the short term. However, longer term approaches are important, particularly in tracing the underlying beliefs and stories that influence which information and sources are trusted in a given cultural context. Tools such as social network analysis can help map communication networks. Longitudinal studies using methods such as sentiment analysis may make it more possible to trace shifts in sentiment in the wake of disinformation campaigns. Surveys and panel data would be useful in monitoring longitudinally and comparatively shifts in different forms of trust before, during, and after events. However, there is a need to combine them with qualitative research to examine exactly what 'trust in media' means to citizens

and how they assess this as they engage with (dis)information on a daily basis. A survey seeking to measure trust in a given social media platform may reveal little, given that information on a particular platform comes in many forms. If a social media site hosts an online newspaper article, how do people weigh up their trust in the platform against the source of the article? How do people assess the veracity of these different sources when an offline friend, family member, or colleague presents alternative interpretations from their preferred sources?

Research on different dimensions of trust and how they may affect belief in disinformation is now developing. Zimmerman and Kohring's longitudinal study before, during, and after the 2017 German parliamentary election campaign has shown that institutional distrust in traditional news media was associated with an increased tendency to believe online disinformation.[168] Distrust in the political system generally was associated with greater belief in online disinformation too, and greater support for right-wing parties. Hameleers et al. have shown that disinformation combining visual and textual content is slightly more believable than text alone.[169] Intriguingly, emerging research on 'deep fakes' suggests they may not mislead people easily, but they do make people distrust social media news more.[170] More research needs to be done to examine these dimensions of trust in different media, countries, and contexts. The offline dimension remains notably absent. It should be incorporated.

Understanding how people navigate and trust information sources in specific contexts likely requires qualitative sociological and ethnographic research. The more community-specific research is, the better. For instance, researchers have observed increasing disinformation campaigns on messaging platforms such as WhatsApp, Telegram, WeChat, and Snapchat.[171] This is unsurprising—as an app's public popularity increases, political actors will obviously try to exploit it. However, the extent to which trust in information varies by platform, or how people assess its veracity compared to offline sources, remains poorly understood. How communities on 4chan or 8chan interact with disinformation will be different from how people interact on Twitter. There may be significant

168 Fabian Zimmermann, and Matthias Kohring, 'Mistrust, Disinforming News, and Vote Choice: A Panel Survey on the Origins and Consequences of Believing Disinformation in the 2017 German Parliamentary Election', *Political Communication*, 37, Nº 2 (2020): 215–37.
169 M. Hameleers et al., 'A Picture Paints a Thousand Lies? The Effects and Mechanisms of Multimodal Disinformation and Rebuttals Disseminated via Social Media', *Political Communication*, 37, Nº 2 (2020): 281–301.
170 Christian Vaccari and Andrew Chadwick, 'Deepfakes and Disinformation: Exploring the Impact of Synthetic Political Video on Deception, Uncertainty, and Trust in News', *Social Media & Society*, 6, Nº 1 (2020).
171 Bradshaw and Howard, 'The Global'.

differences within different threads on a given platform, about which we still understand relatively little.

Offline ethnographic research would be especially valuable. We know little about how families and friends discuss and debate the dis- and misinformation they come across in everyday life. Yet as per the 5G conspiracy theory, such discussions are likely to be vital in transforming awareness of an issue into offline action to address it. Coronavirus has seen a massive spike in television news viewing, as people throughout Britain convene for daily government news conferences. Concerns about disinformation are embedded throughout this process, with ongoing questioning of whether the government is lying about deaths, or misleading citizens by obscuring the evidence base for its recommendations. We know little about the discussions people have offline about these media events, what shapes choices about which information to trust and from whom, and how a given medium shapes verification practices. Do people trust information viewed live on television more, even though they may be able to access far more detailed information online? Are they less likely to seek to verify information on televised news than information viewed online? Interviews, surveys, focus groups, and ethnographic research, ideally in combination, would provide far deeper insights into these issues, most probably on non-COVID-19-related topics given the impediment of social distancing. Such activities would ground disinformation research more strongly in citizens' everyday experiences. This would provide greater breadth and balance in a field still dominated by research quantifying the spread of disinformation online.

If the trend of leading politicians sowing disinformation with apparent impunity continues, how does this affect how parents and teachers explain to children the costs of lying? How do such conversations play out—not just online, but at the dinner table in citizens' homes, in front of the television, and on the way to the polling booth? These elements are especially important given that citizens spread dis- and misinformation too, and can contribute to their own disenfranchisement in the process.[172]

Conclusion

This paper has argued for a rethink in how disinformation is conceptualised and studied in order to assess its impact more productively. Most disinformation

172 Mejias and Vokuev, 'Disinformation'.

research focuses on its spread rather than on its impact on beliefs or behaviours. It is top down, focusing first on disinformation spread by malign actors—how it spreads and what content is spread. Few, if any, studies have provided evidence of measurable impact on trust or community cohesion. Democracy-undermining effects are assumed, but rarely demonstrated.

We contend that disinformation's impact will be more productively examined if more research employs hybrid media approaches and goes beyond social media to examine traditional media and offline communication. We have sought to show the importance of this using recent examples in the UK between the 2016 Brexit referendum, and the early stages of the COVID-19 outbreak, including the government's counter-disinformation policies that emerged in between. These examples show the importance of exploring cultural variations in the media ecologies through which disinformation spreads and how various groups perceive disinformation. The UK illustrates that counter-disinformation policy focusing mainly on *social media*, *false* content, and *external* actors will have limited impact given the greater prominence of *misleading* content in *traditional* media spread by *domestic* political actors.

Disinformation research must look beyond spread to examine broader societal impacts. Impact on trust and social cohesion should be examined directly rather than being assumed. It is important to develop a common language to engage with these issues. This language should be sensitive to complexities that are hidden when using oversimplistic ideas of disinformation being a 'pathogen' to be defeated by 'inoculation'.

Disinformation has no single cause or solution. Research and policy interventions should reflect this. 'Solutions that are based on misdiagnosis, particularly on imagining that Facebook, or bots, or the Russians are the core threat, will likely miss their mark.'[173] More robust studies use mixed methods, combining experiments, surveys, interviews, and focus groups with direct recording or observation of behaviour.[174] Most research examines a single platform, such as Twitter. Broadening this to interactions between multiple platforms and offline behaviour would be helpful. More sociological, ethnographic research to understand how people interact with disinformation in everyday life is imperative.

173 Benkler et al., *Network Propaganda*, p. 379.
174 Guess et al., 'Less Than You Think'.

DOI 10.30966/2018.RIGA.8.3.

Most importantly, if disinformation persuades by resonating with existing beliefs, then its persuasiveness is contingent not only on its content or delivery medium but also on the beliefs and knowledge an audience already possesses. This underlines the importance of adopting an issue- or event-specific approach to understanding disinformation's impact. Generally reducing the amount of disinformation in the media environment is useful, as is regulating online platforms and political advertising. Now researchers need to address what impact disinformation is *actually* having on society.

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