

TRANSITIONS  
FORUM



BEYOND PROPAGANDA | OCTOBER 2016

# Facts We Can Believe In: How to make fact-checking better

by Alistair Shawcross

## ABOUT THE LEGATUM INSTITUTE

The Legatum Institute is an international think tank and educational charity focused on understanding, measuring, and explaining the journey from poverty to prosperity for individuals, communities and nations. We believe true prosperity is as much about wellbeing as it is wealth, if all people are to flourish.

To support and promote this vision, our research programmes—the Economics of Prosperity, Transitions Forum, the Culture of Prosperity, and the Centre for Character and Values—seek to understand what drives and restrains national success and individual flourishing.

The *Legatum Prosperity Index*<sup>™</sup>, our signature publication, ranks 142 countries in terms of wealth and wellbeing.

The Institute, together with *Foreign Policy* magazine, co-publishes *Democracy Lab*, whose on-the-ground journalists report on political transitions around the world.

The Legatum Institute is based in London and is an independent charity within the Legatum Group, a private investment group with a 30-year heritage of global investment in businesses and programmes that promote sustainable human development.

## ABOUT THE BEYOND PROPAGANDA SERIES

This publication is produced by the Legatum Institute's Transitions Forum, from the team focusing on Propaganda. The Legatum Institute believes that disinformation feeds polarisation and breaks down the trust necessary for social well-being, civil society and good governance. At its extremes disinformation incites violence. The Transitions Forum's 'Beyond Propaganda' series investigates these challenges and aims to identify solutions. The programme is led by Peter Pomerantsev.

Find out more at [www.li.com/programmes/beyond-propaganda](http://www.li.com/programmes/beyond-propaganda)

The Legatum Institute would like to thank the Legatum Foundation for their sponsorship and for making this report possible.

Learn more about the Legatum Foundation at [www.legatum.org](http://www.legatum.org).

The Legatum Institute is the working name of the Legatum Institute Foundation, a registered charity (number 1140719), and a company limited by guarantee and incorporated in England and Wales (company number 7430903)



## CONTENTS

<b>Executive Summary</b>	<b>2</b>
<b>1. Can Fact-Checking Help?</b>	<b>4</b>
<b>2. Case Studies</b>	<b>6</b>
The Republican Primaries: PolitiFact and Donald Trump	6
Full Fact and the EU Referendum	10
<b>3. Exploring Other Initiatives</b>	<b>15</b>
Fact-checking on Television	15
Technology	16
Annotation and Crowd-sourcing	21
<b>4. Challenges to Fact-Checking</b>	<b>25</b>
Echo Chambers	25
Sustainable Business Models	27
<b>Conclusions and Recommendations</b>	<b>29</b>
Mainstreaming Fact-checking	29
Targeted Audience Analysis	31
<b>Afterword</b>	<b>33</b>
<b>References</b>	<b>34</b>
<b>About the Author</b>	<b>inside back</b>

## EXECUTIVE SUMMARY

New media and the information revolution have not only empowered access to information but also fuelled the spread of disinformation. Such is the scale of the problem that the World Economic Forum has defined misinformation as one of the world's most urgent problems. Corrupt, neo-authoritarian rulers have become skilled at using disinformation to confuse their opposition, break down trust and fracture civil society.<sup>1</sup> Increasingly, disinformation is used as a weapon by closed societies to attack more open ones. Inside democracies whole segments of society are pulled into alternative realities which are manipulated by violent extremists and dominated by conspiracy theories. Some commentators have even speculated that we are entering a "post-fact" age where political candidates reinvent reality on a whim.<sup>2</sup> This poses a serious danger to deliberative democracy and good governance: if we cannot agree on the facts, debate and decision-making break down.

"Fact-checking" has become an increasingly popular way to fight back against the deluge of disinformation. Having originated in the US, the movement is growing throughout the world, from the information wars of Ukraine through to the Middle East and Latin America. It is a young discipline still working out how it can maximise its impact. In this paper we look at the different methodologies of two of the most advanced fact-checking organisations, Politifact and Full Fact, and see what lessons can be drawn from their experiences during the US Primaries and EU Referendum. We then look at the latest technological innovations in fact-checking, and make recommendations for how best to develop fact-checking across the world and especially in those countries and communities most at risk from the spread of false information.

In order to progress fact-checkers and funders need to:

- » **Mainstream Fact-Checking in the Media:** Fact-checking currently exists in a niche where it is sought out by those who have an *a priori* interest in "the facts". One way forward is to include fact-checkers live in current affairs debating shows and news programmes. This can also help make fact-checking entertaining. Media development agencies, donors and international public broadcasters such as the BBG, BBC Media Action and World Service could fund and create programmes with built-in fact-checking. A more permanent fact-checking presence in US and UK broadcasting and debating shows would help nip politicians' lies in the bud.
- » **Understand and Penetrate Echo Chambers:** Social media and search algorithms have led to audiences self-selecting the "facts" they want to hear. Simply hurling "the truth" at them produces a back-fire effect which solidifies prejudices. Instead, echo chambers need to be analysed and understood and the key influencers identified. Once the underlying world-views have been understood, fact-checkers can engage more meaningfully with the audience. This audience-centred approach needs to inform fact-checking across the board, but is especially urgent for echo chambers which form a security risk, such as ones dominated by violent extremist ideologies.

- » **Export Fact-Checking Technologies:** Some of the most advanced fact-checking technologies are being developed by established fact-checkers in the US and the UK: from widgets that make verified fact-checks easy to share online, through to programmes that can automatically spot claims online and link them to similar claims that were already fact-checked. These innovations could help fact-checkers spread their work wider and publish it quicker. They could also help reduce start-up costs for new initiatives in countries such as Ukraine where disinformation is rife.
- » **Encourage Education and Regulation:** Fact-checking needs to be seen as part of a broader push for improving a fact-based public discourse. In order to help a new generation find their way through new media, media literacy needs to be reinvented in schools, with fact-checking a major component of school curricula. At the regulatory level a Standards Authority for Political Campaigns could help ensure politicians cannot lie with impunity.
- » **Establish a Transparency International for Disinformation:** Disinformation is one of the greatest challenges facing the world today. There is a space for a specialised NGO that leads on this issue, playing the same role with regards to disinformation as Transparency International does with corruption and Human Rights Watch with human rights. Fact-checking needs to be more than merely reactive; it should be part of a broader aim to empower people to engage with public debate. If power is inextricably linked with knowledge, then fact-checkers could give power to those who feel powerless by ensuring that accurate, genuine knowledge is not only accessible to all, but predominant in political discourse.

## 1. CAN FACT-CHECKING HELP?

Fact-checkers use on-the-record interviews and open-source material to check whether the “fact” used in a claim is confirmed by existing public data.<sup>3</sup> The fact-checks are then posted online, usually in the format of lengthy, text-based posts, with their sources cited to ensure transparency.

The modern fact-checking movement can be traced back to the 1988 US presidential election, which featured a flurry of negative attack advertisements and led to early groups such as SpotCheck and Adwatch.<sup>4</sup> In an increasingly fractured media landscape, the demand for the fact-checkers’ services has increased and the movement has grown around the world. A 2016 census of fact-checking and promise-tracking initiatives showed 96 such projects operating across 37 countries.<sup>5</sup> This represents a remarkable 50 percent increase on the 2015 census. In June 2016, fact-checkers from all over the world met for the third annual fact-checking summit in Buenos Aires to assess their position and forge strategies for moving forward.<sup>6</sup>

To determine whether or not an institute is a legitimate fact-checker, the Poynter Institute, a non-profit journalism school and home of the International Fact-Checking Network, has identified some common characteristics. Genuine fact-checkers should examine all parties to, or sides of, a debate. Their fact-checks should reach clear conclusions on the validity of a claim, and the process by which that conclusion was reached should also be clear. Fact-checkers should cite their sources and disclose any funding or affiliations which may impact their neutrality.<sup>7</sup> As it stands, most fact-checkers are financed through a variety of institutional or corporate grants and individual donations (including crowd-sourcing campaigns), and this income is, to a lesser extent, supplemented by some for-profit work which includes syndicating their content or offering consultancy services.<sup>8</sup>

Fact-checking, then, is non-partisan. Most groups aim to put “the truth” into the public domain, so that those who want to find information that has not been twisted into a political narrative can do so. Some fact-checkers see this service as integral to the functioning of democracy; without neutral information, an informed society—the cornerstone of a functioning democracy—is lost. Bill Adair, founder of the US fact-checking organisation PolitiFact, has claimed that his “audience is democracy”.<sup>9</sup> PolitiFact, like most fact-checking organisations, aims to help voters find the truth in politics. This does not necessarily mean getting politicians to tell the truth more often. Indeed, most fact-checkers do not expect to “usher in a truth era”.<sup>10</sup> Dr Brendan Nyhan, a social scientist and authoritative voice of fact-checking based in the US, recently tweeted that expecting fact-checkers to prevent lying is “silly”. In the same tweet he asks, “Why haven’t firefighters eliminated fire?”<sup>11</sup> The fact-checker’s role is, then, not to eliminate lies but rather to insert the truth into what Bill Adair calls the “information marketplace”.<sup>12</sup>

Even given this caveat, fact-checkers face many challenges in the digital era. Michael P. Lynch, a professor of philosophy at the University of Connecticut, has observed that the “internet age” is limiting our capacity to use reason when we form opinions. While the internet gives us access to more information, some of which is correct, an informed citizenry would mean that people could distinguish between correct and incorrect information through comprehension.<sup>13</sup> Instead

of engaging in a common public space where people can debate what the facts actually mean, the Internet allows people to live in echo chambers—groups of people who all share the same worldview. As a result, individuals in echo chambers are not challenged in their opinions but rather use the Internet to selectively find data which support their pre-existing biases.

There is also the problem of *how* you correct a fact; debunking a false claim by repeating it with a negation usually means individuals remember the false claim. Similarly, individuals can mistake familiarity for accuracy: “if the correction makes a claim seem more familiar, the claim may be more likely to be seen as true”, writes Nyhan.<sup>14</sup> Fact-checking by its very nature risks perpetuating the myths it seeks to debunk.

**In the next section we will explore how two different fact-checking organisations have operated in two seminal events in the US and UK in 2016: the Republican presidential primaries and the UK’s referendum on EU membership. We then look at how fact-checking is dealing with the challenges of echo chambers and how it could reach larger audiences. As fact-checking spreads and expands in such regions as Eastern Europe, we make recommendations for the future.**

## 2. CASE STUDIES

Journalists have fretted about the coming of a “post-fact” world at least since the 1980s,<sup>15</sup> but there was a marked increase in the number of articles written on the subject in 2016.<sup>16</sup> Two political events are often associated with this “post-fact turn”: the Republican presidential primaries in the US and the referendum on EU membership in the UK.<sup>17</sup> Below we examine two fact-checking organisations, US-based PolitiFact and UK-based Full Fact, in order to highlight two distinct approaches to fact-checking, their effectiveness, and the viability of these models for fact-checking in the future.<sup>18</sup>

### THE REPUBLICAN PRIMARIES: POLITIFACT AND DONALD TRUMP

---

The fact-checking movement in the US took off following the establishment of FactCheck.org in 2003. According to Bill Adair, journalist and founder of PolitiFact, FactCheck.org “showed how fact-checking could be done” but was bedevilled by a small audience.<sup>19</sup> Inspired by FactCheck.org but confident he could improve on the formula, Adair established PolitiFact in 2007. PolitiFact present their text-based fact-checks with visual ratings (green for truth, red for lies) and an easy-to-understand “Truth-O-Meter”. The ratings system makes fact-checking immediately accessible to the general public, and their report card system allows readers to immediately see which politicians have lied most frequently. PolitiFact has continued to grow since 2007, and in 2009 it won the Pulitzer Prize for National Reporting. 2016 has been the best year for PolitiFact so far, with website traffic up by 128 percent in the first five months of 2016 compared to the same period in 2015.<sup>20</sup>

### Methodology

PolitiFact aims to put the fact-check into the public domain so that it is accessible to those who want it. According to Bill Adair, PolitiFact’s main aim is not to stop individuals lying, but to “empower democracy” by “introducing accurate truth” into the “information marketplace”.<sup>21</sup> In short, PolitiFact aims to provide the tools needed for an informed citizenry. This explains why PolitiFact’s material is packaged in such a lively manner; their fact-checks are another competing element in a scattered information marketplace and so have to attract readers. In their own words, “PolitiFact staffers research statements and rate their accuracy on the Truth-O-Meter, from True to False. The most ridiculous falsehoods get the lowest rating, Pants on Fire.”<sup>22</sup> After a writer researches a claim, their article is reviewed by a panel of “at least three editors” who then determine the Truth-O-Meter rating.<sup>23</sup> They check claims by elected officials, leaders of political parties, and political activists (a partner website, PunditFact, checks claims made by pundits), as well as claims made by “groups involved in [political] discourse”, such as political parties and political action committees.<sup>23a</sup>

To choose which claims to check, PolitiFact staffers scour political commentary for statements. They examine speeches, news stories, advertisements, and even social media memes for claims rooted in a verifiable “fact” or for claims that would leave a particular, lasting impression if left unchecked. As with all fact-checking organisations, it would be impossible for PolitiFact to check everything, so its staffers

## Share The Facts



Donald Trump

Presidential candidate



POLITIFACT

Says Ted Cruz's father "was with Lee Harvey Oswald" before the assassination of President John F. Kennedy.

in an interview on Fox News – Tuesday, May 3, 2016

SHARE

READ MORE



Above: PolitiFact's fact-checks are lively and accessible to attract readers. The "Share the Facts" widget allows bloggers to embed images like this directly into their websites.

Right: At the end of every fact-check, PolitiFact lists its sources with links.

Source: <http://www.politifact.com/truth-o-meter/statements/2016/may/03/donald-trump/donald-trumps-ridiculous-claim-linking-ted-cruzs-f/>

## Sources:

Fox News, "WATCH: Trump Connects Cruz's Father to Lee Harvey Oswald," May 3, 2016

*The Hill*, "Cruz: Trump is an 'utterly amoral' bully, narcissist, pathological liar," May 3, 2016

*National Enquirer*, "Ted Cruz's Father – Caught With JFK Assassin," April 20, 2016

McClatchy, "Trump links Cruz's father to JFK assassin, channeling National Enquirer," April 22, 2016

Snopes, "Was Ted Cruz's Father Linked to the JFK Assassination?," April 17, 2016

Rafael Cruz, A Time for Action, Jan. 5, 2016

Politico, "Trump accuses Cruz's father of helping JFK's assassin," May 3, 2016

CNN, "Cruz unloads with epic takedown of 'pathological liar,' 'narcissist' Donald Trump," May 3, 2016

*New York Times*, "Cuban Peers Dispute Ted Cruz's Father's Story of Fighting for Castro," Nov. 9, 2015

*National Review*, "The Rise of Rafael Cruz," Aug. 28, 2013

*New Yorker*, "The Party Next Time," Nov. 19, 2012

National Archives, "Report of the President's Commission on the Assassination of President Kennedy," accessed May 3, 2016

Email interview with Cole Calistra, Chief Technology Officer at Kairos, May 3, 2016

Email interview with James Wayman, former director of U.S. National Biometric Test Center, May 3, 2016

Email interview with David Abraham, a law professor at the University of Miami, May 3, 2016

Email interview with Steven Beschloss, author of *The Gunman and His Mother: Lee Harvey Oswald, Marguerite Oswald and The Making of an Assassin*, May 3, 2016

Email interview with William M. LeoGrande, American University government professor and author of *Back Channel to Cuba: The Hidden History of Negotiations between Washington and Havana*, May 3, 2016

Email interview with María Cristina García, Cornell University historian and author of *Havana USA: Cuban Exiles and Cuban Americans in South Florida, 1959-1994*, May 3, 2016

Interview with Van Gosse, Franklin & Marshall College historian and author of *Where the Boys Are: Cuba, Cold War America and the Making of a New Left*, May 3, 2016

select what they believe are the “most newsworthy and significant” claims—the ones they think would have the biggest (negative) impact on the “information marketplace” if they were left unchecked.<sup>24</sup>

To conduct the fact-check, PolitiFact uses on-the-record interviews and open-source material online. At the end of every fact-check, PolitiFact lists its sources with links so that readers are able to use the material to judge for themselves the veracity of a claim.

The main fact-check is published in the form of long-form text hosted on PolitiFact’s website. Alongside this text, PolitiFact publishes a visual aid in the form of its Truth-O-Meter, which grades the claim from True, through Mostly True, Half True, Mostly False, False, all the way to Pants on Fire. While PolitiFact does not publish its timeframes, other research has found that fact-checks can take anywhere from a few hours to a few days to research and publish.<sup>25</sup>

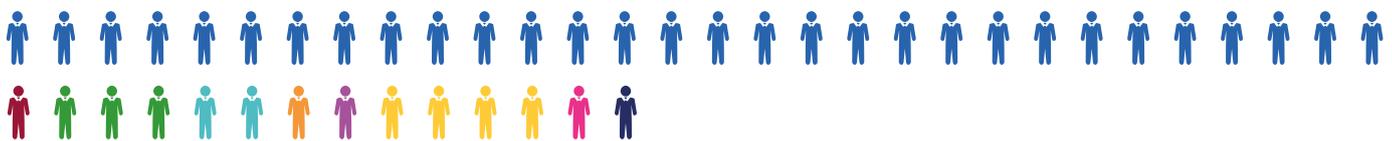
Once a judgement has been made, PolitiFact then sets about disseminating its analysis to the public. In general, American websites prefer to use snappy, colourful images which instantly give readers an idea of whether a claim is true, partly true, or a lie. The *Washington Post*’s Fact Checker section gives claims a “Pinocchio” rating, while PolitiFact uses its Truth-O-Meter; a “Share the Facts” widget developed by the Duke Reporters’ Lab makes colourful visual aids even easier to share on Twitter and Facebook.<sup>26</sup> These graphics are designed to give readers the information they need in the shortest amount of time and to pique their interest so that they read the full fact-check.

## The Republican Party Primaries

The Republican primaries in the United States have kept the fact-checkers at PolitiFact busy with candidates keen to label their rivals liars. Ted Cruz’s campaign autobiography is even titled “A Time for Truth”, while Donald Trump labelled Cruz “Lyn” Ted.<sup>27</sup> None of the Republican candidates, however, were particularly attached to the truth. Out of approximately 114 of Ted Cruz’s statements examined by PolitiFact, 65 percent were judged to be Mostly False, False, or Pants on Fire. Fifty-one percent of Marco Rubio’s checked claims were found to be false.<sup>28</sup> Donald Trump has been fact-checked by PolitiFact 158 times, and 76 percent of his statements have been rated as Mostly False, False, or Pants on Fire.<sup>29</sup> By comparison, Hillary Clinton’s statements have been fact-checked 136 times, and 27 percent of these were found to be Mostly False, False, or Pants on Fire.<sup>30</sup> Twenty-nine percent of Bernie Sanders’s 106 statements were False or Mostly False, but he received no Pants on Fire scores.<sup>31</sup> While all politicians have twisted the truth during this election, Trump is quantitatively the worst. Indeed, in 2016 Trump’s comments have been rated Pants on Fire 18 times—more than the entire Democratic field for the duration of the campaign.<sup>32</sup>

For each of these statements, PolitiFact went through the same process; it tried to find primary sources that would support the claim, wrote the fact-check on its website which proved it to be untrue, and then published the results online. In July 2015, for example, Trump claimed that Christian Syrians were not allowed in the US. PolitiFact showed that there was no discrimination towards Christian refugees.<sup>33</sup> A few weeks after that, he flatly denied that he had ever made misogynistic comments, including the remark that it would be a “pretty picture” to see a female contestant on his television show *The Apprentice* “on her knees”. PolitiFact proved that he did say it (and it is remarkable that he denied something so publicly available, even on YouTube).<sup>34</sup> On August 24, 2015 he stated that the US was the highest-taxed nation in the world, a claim which—no

## Pants on Fire Ratings



matter which economic model PolitiFact used—was proven to be untrue.<sup>35</sup> On September 28, he claimed that US unemployment was as high as 42 percent. This, too, was not backed up by the data.<sup>36</sup> On November 21, Trump made perhaps his most infamous claim, saying that he had seen video footage of thousands of Muslims in New Jersey cheering the collapse of the World Trade Center. No such footage has ever been found.<sup>37</sup>

PolitiFact awarded its “Lie of the Year” prize to Trump’s “many campaign mis-statements”.<sup>38</sup> Despite all this, Trump finished 2015 at the head of the Republican race, and in the following year he won the primary elections. In 2016 his rhetoric against his rivals Cruz and Clinton became more fierce. In the case of the former, he asserted that Cruz’s father had been with presidential assassin Lee Harvey Oswald before the assassination of John F. Kennedy.<sup>39</sup> He accused Hillary Clinton of wanting to “release the violent criminals from jail”.<sup>40</sup> Rather than walking away from these and other contentious claims when challenged by fact-checkers and journalists, he restated them.

*Above:* The number of Pants on Fire ratings received by each politician in the Democratic and Republican primaries.

Source: [www.politifact.com/truth-o-meter/article/2016/jun/29/fact-checking-2016-clinton-trump](http://www.politifact.com/truth-o-meter/article/2016/jun/29/fact-checking-2016-clinton-trump).

Linda Qiu, a researcher at PolitiFact, says Trump is qualitatively different from previous candidates with his “blatant disregard for the truth”.<sup>41</sup> According to Qiu, Trump has claimed that fact-checkers are “biased and liberal”, and as such he has no need for them.<sup>42</sup> Alexios Mantzaris, an analyst at the Poynter Institute, has argued that what makes Trump different (but not unique—other countries have had Trump-like figures before) is his ability to walk away from a claim.<sup>43</sup> Trump asserts his contradictions with such gusto that it puts the onus on the listener to decide where Trump “actually” falls on the political spectrum. Michael Lynch raised the example of Trump impersonating his own public relations team.<sup>44</sup> In the 1970s, 1980s, and 1990s, Trump called New York reporters and editors who covered his early career pretending to be a PR professional calling on his behalf.<sup>45</sup> In the 1990s he admitted that he himself was the caller, and yet in 2016 he went back on the admission.<sup>46</sup> By putting both statements in the public domain, it is essentially left to the listener to work out which version of the story is true. According to Lynch, listeners will almost always choose the version of reality which fits their existing worldview.

## Measuring Impact

PolitiFact does not currently analyse what happens to its fact-checks after they are put in the public sphere. In Linda Qiu’s view, it is a matter of putting the fact-check out there and hoping that voters will be more informed by the fact-check.<sup>47</sup> While fact-checking sites report increased visitor traffic, “no decisive research exists to say whether people visiting a nonpartisan fact-checking site engage in ‘confirmation bias’ at the level of story selection”.<sup>48</sup>

The PolitiFact model relies on individuals seeking out fact-checking themselves, which has significant drawbacks. First and foremost, “people select which media they consume”,<sup>49</sup> and often it is the most politically aware to begin with who bother to search for fact-checking websites. According to representatives of PolitiFact, their work will “never persuade strong partisans”.<sup>50</sup> The audience is very much the political centre. PolitiFact has tried to enlarge its audiences, and in 2016 it engaged partisan audiences in question-and-answer sessions on a channel dedicated to Donald Trump on the popular website reddit.com.<sup>51</sup> There is some evidence that online commentary of this kind can change minds—researchers have found that dedicated, question-and-answer-style questioning in which fact-checkers ask others to explain their opinions (and not just to state their facts) can lead, if not to changed minds, then to critical thinking. However, PolitiFact researchers found that people with partisan beliefs “pushed back” on even mild fact-checks.<sup>52</sup>

In the UK, a fact-checking group called Full Fact tried a different strategy to PolitiFact’s “market-orientated” approach during the EU referendum.

## FULL FACT AND THE EU REFERENDUM

---

Full Fact was founded in London in 2010 as an independent, non-partisan charity. Starting with just three staff, it now has ten core staff including five fact-checkers. Like PolitiFact, they check claims made by politicians, the media, pressure groups, and other voices in the public debate. Unlike PolitiFact, they usually lobby for corrections to be published where and when necessary. They have so far secured corrections from every major newspaper (excluding *The Star* and the Sunday papers) and from a number of politicians including former prime minister David Cameron, and they worked with broadcasters to fact-check events such as BBC *Question Time*, live.<sup>53</sup> Full Fact also works

to stop similar mistakes being made by public figures in the future by working with government departments and academic research institutions to “improve the quality and communication of technical information” at source. For example, it has worked with the Government Statistical Service to redevelop how they present their data in an effort to make public data easier to access and, crucially, easier for the general public to understand.<sup>54</sup>

Full Fact is therefore a different type of fact-checker. It is interested in the systems of knowledge and the mechanisms by which information is put into the public sphere—since, in its view, only these gatekeepers can stop claims being repeated again and again. In general terms, if the PolitiFact approach can be understood as bottom-up and focused on audience engagement, the Full Fact approach to change includes, alongside audience engagement, a more top-down approach that is focused on media engagement.

According to Will Moy, director of Full Fact, the team measure their impact in terms of “fixing the systems that lead to errors”.<sup>55</sup> The Full Fact team conceptualise their job as stopping or reducing the spread of misinformation in the information marketplace in the first place. Commenting on Dr Nyhan’s analogy comparing fact-checkers and firefighters who cannot prevent fires, Moy argues that firefighters *do* also engage in fire safety education in order to prevent more fires. The Full Fact team would see their work as successful both if a claim that they have proven to be false is then removed from public discussion and if similar claims can no longer be made. In practice, then, the Full Fact team see fact-checking as a double-pronged fork: they seek to add facts to the marketplace and, at the same time, to improve the institutions which make up the marketplace to stop misinformation being easily spread.

## Methodology

The Full Fact team look out for claims that are repeatedly made in political debate or ask the public for suggestions of claims to fact-check. With the exception of important events such as the general election in 2015 or the UK referendum on EU membership in 2016, Full Fact researchers use the Ipsos MORI Issues Index, which lists the issues of concern for the British public, to select claims to debunk.<sup>56</sup> This preference for issues—rather than waiting for lies to be told—distinguishes Full Fact from PolitiFact. When a topic has been selected, a researcher then begins to search for the primary material on which the original claim was based. Once found, the research team then analyse what the figures actually mean and whether the claim lives up to the reality. As part of this process, they may well contact relevant independent bodies, such as the Institute for Fiscal Studies or the Office for National Statistics. Full Fact also has a list of experts who are available to help with specific fact-checks.

Full Fact believes that fact-checks alone “are not enough” to stop misinformation. Alongside publishing fact-checks for the public’s consumption, they also get in touch with those they are correcting to try to secure a correction from the source. When necessary, Full Fact is prepared to refer “cases of malpractice” to the relevant regulatory body.<sup>57</sup> This usually involves taking cases to the UK Statistics Authority (UKSA), but they have also used the Advertising Standards Authority and, in the past, the Press Complaints Commission. Full Fact has a particularly close relationship with the UKSA and has had good responses when it has escalated cases. For example, in December 2015, the chair of the UKSA responded to a letter from Full Fact agreeing that net migration was being poorly

presented by ministers. The chair then spoke to Cabinet Office officials to ensure that net migration was presented along Full Fact's guidelines in the future.<sup>58</sup> Separately, the Department of Health has introduced an internal data document to help its press office track down queries from Full Fact and the press relating to statistics used in ministerial speeches.<sup>59</sup>

Full Fact's aim is to "improve the quality and accountability of public debate for everyone", which "means stopping misinformation at its source".<sup>60</sup> As a result, the Full Fact model of fact-checking targets those with the "leverage to change the presentation of information"—journalists, newscasters, and opinion formers—in an attempt to force these professionals to tie public debate to reality.<sup>61</sup> Of course, this is not to say that Full Fact does not also engage with the general public—it does—but it focuses less on getting fact-checks re-tweeted thousands of times, and more on pressuring news institutions to stop lies being repeated and to prevent misinformation being spread unchallenged. The aim is to ensure that television hosts and journalists do not allow a piece of misinformation to enter the public sphere without significant analysis and clear labelling as misinformation. This focus on the institutions of information largely explains the absence of eye-catching visual aids like the Truth-O-Meter and Full Fact's more muted social media presence. In Will Moy's view, this is a "more cost-effective way to do fact-checking". Politicians and political campaigns will "always have more money than fact-checkers",<sup>62</sup> so fact-checkers need to find a way to combat misinformation which avoids trying to shout louder than their opponents.

## The EU Referendum

In preparation for the referendum, Full Fact spent the preceding months looking at previous EU debates, particularly those between Liberal Democrat Nick Clegg and UKIP leader Nigel Farage held in 2014, in order to identify likely hot-button issues. Preparations also included a two-year-long process of building a network of academics who could help Full Fact at short notice on topics such as the Transatlantic Trade and Investment Partnership. Full Fact's referendum output included 185 fact-checks and 25 videos.

As the referendum campaign got underway, the team also approached Ipsos Mori to gain insights into the issues that were most likely to decide the referendum: the economy and immigration.<sup>63</sup> The fact-checks that Full Fact carried out on these issues were by far its most visited pages. Perhaps the most notorious claim concerned the £350 million sent by the UK to the EU each week. Full Fact argued this claim was inaccurate, since it did not take into account the rebate (worth £5 billion a year) which limits the UK's contributions.<sup>64</sup> While the claim was still repeated by the Leave campaign, this fact-check was visited three times more than all the other fact-checks put together. In fact, 10 percent of Full Fact's total page views were on this piece alone. Nevertheless, the team did not manage to remove the claim from circulation.

For much of the campaign, the Full Fact team could not follow their usual practice of directly applying pressure on people they check by asking them to correct their inaccurate statements. According to Will Moy, the six-week time frame of the referendum was just too small for them to change the nature of the debate.<sup>65</sup> Moreover, there is no legal framework within which politicians can be held to account for their lying. Given the short timeframe and the relative toothlessness of fact-checkers, the political price for the Leave campaign in abandoning this pledge was simply too high; the claim concerning the £350 million a week sent to Brussels was one of the central claims which underpinned its entire campaign.

The referendum campaign timeframe was, then, too short for Full Fact to deliver the type of institutional change that it wants to deliver. Nevertheless, over the course of the referendum campaign Full Fact attempted other innovative approaches. On May 14, Full Fact hosted a Wikipedia “Edit-a-thon”, in which it brought together a group of volunteers to update and improve 19 of Wikipedia’s most read pages on the EU. It did this by training volunteers to edit the pages to ensure that opinions were not presented as facts and that data on the relevant pages were not presented in such a way as to legitimise opinion. Full Fact also worked to get itself featured in a number of the largest newspapers in the country, with the *Financial Times* profiling the organisation.<sup>66</sup> As the referendum drew closer, members of the team appeared on numerous television shows, including ITV’s *Good Morning Britain*, the BBC’s current-affairs discussion show hosted by Victoria Derbyshire, and Sky News, to talk through their fact-checks and to help dispel some common myths about the EU. Full Fact fact-checkers “live fact-checked” the EU debates held on ITV, and the team set up in the ITV building and live-tweeted fact-checks on claims made by candidates, complete with links to more extensive, text-based fact-checks which had been completed some weeks earlier; they also briefed ITV’s staff covering the debate on factual claims and background. In the final weeks of the campaign, Full Fact produced short videos optimised for Facebook which analysed leaflets that both the Remain and Leave campaigns had delivered to households in the weeks before.<sup>67</sup>

## Measuring Impact

Full Fact had mixed results in its attempts to hold official bodies accountable to the facts. On the one hand, one of the more egregious claims made by the Remain campaign—that three million UK jobs “depended” on the EU—was altered by the campaign following pressure from Full Fact. The wording of the claim was changed so that the Remain campaign argued that there were three million jobs in the UK related to the EU. On the other hand, perhaps the most infamous Leave claim—that the EU costs the UK £350 million a week—continued to appear in Leave campaign leaflets and materials long after it had been debunked by Full Fact. (It is notable here that Full Fact was not featured in the most read newspaper in the UK, the *Daily Mail*, which was a vociferous advocate of Vote Leave). *The Sun* newspaper only published one correction throughout the campaign, and this related to a claim made before the campaign had begun.<sup>68</sup>

Part of the problem may have been that Full Fact did not press for corrections during the referendum as it normally does. According to director Will Moy, this was because that process usually requires Full Fact to develop constructive relationships with the people who made the claim in the first place and the institutions involved in correcting it. The EU debate was too polarised and too short to build this type of relationship with the key players influencing the EU debate: mostly politicians and the people supporting them. Indeed, even respected (and independent) authorities such as the UK Statistics Authority and the Institute for Fiscal Studies were flatly told that they were wrong or biased by Leave campaigners. As Michael Gove, former secretary of state for justice and one of the leaders of the Leave campaign, famously said, “People in this country have had enough of experts.”<sup>69</sup> In this environment, it was hard for Full Fact to use respected authorities to justify their fact-checks, since many of the Leave campaigners actively derided the role of independent experts in the UK.

Another important factor in the EU debates was that neither Remain nor Leave engaged in a real debate with the other side, even when they were ostensibly arguing with each other. According to Full Fact, competing claims from each side could both be technically correct when used on the

particular terms that each side chose to use.<sup>70</sup> This meant that the “facts” deployed by the opposing sides did not engage with each other. This can be seen in practice with two of the other major debate points: control of UK borders and the sovereignty of Parliament as a law-making institution.

The crux of the border issue was the question of whether or not the UK “controls” its own borders or, put more simply, whether or not the UK government can manage the scale of immigration while still a member of the EU. The Leave campaign argued that it could not and that being a member of the EU meant signing up to the principle of free movement for EU nationals. While this missed the point that migration to the UK is more than just a matter of EU migrants, the fact that being in the EU means accepting free movement is correct. On the Remain side, then Home Secretary Theresa May argued that, if the government chose to, the UK was able to turn EU nationals away for reasons of public security or health. This, too, was correct, but did not really engage with the argument put forward by the Leave side. As a result, the two arguments existed side by side without forcing people to think critically about the issue, and this allowed individuals to decide that whichever side chimed with their pre-existing prejudices was telling the truth.

Similar issues were highlighted in the controversy over how much control of legislation was held by the UK parliament in comparison to the European Union. The Leave campaigners claimed that up to 60 percent of all the UK’s laws were made in Brussels, while the Remain campaign claimed that the number was nearer to 13 percent. Both sides got their numbers from the same source.<sup>71</sup> In 2010 the House of Commons Library published a comprehensive analysis of the ways the total could be calculated. It noted that “all measurements have their problems and it is possible to justify any measure between 15% and 50% or thereabouts.”<sup>72</sup> If campaigners relied simply on data, therefore, both claims were equally correct. To get to the bottom of the issue, Full Fact engaged with the data more closely and found that estimates towards the higher end of the spectrum were less reliable since they included EU rules “that aren’t really laws in any meaningful sense.”<sup>73</sup> The problem stems from whether one defines UK law to include only Acts of Parliament and Statutory Instruments, or whether one includes EU regulations in that. Including regulations in this number almost certainly exaggerates the degree of EU influence, since this includes regulations which, while they automatically apply to the UK, might be less relevant to the UK (such as tobacco growing in the Canary Islands for example). The higher end of the estimate also includes decisions from the EU which are not so much laws as much as administrative decisions (including a customs code for light-up plastic skulls). According to Michael Dougan, professor of European Law at the University of Liverpool, including these administrative decisions would be like comparing apples with pears.<sup>74</sup> To compare apples with apples, one would have to compare the number of decisions that come from Brussels with “all the decisions made in government departments rather than [just] Acts and Statutory Instruments passed in parliament.”<sup>75</sup> As the competing sides were using the same source for different ends, each could not deride or undermine the other’s claim, and as a result—much as in the previous example—both claims were able to exist side by side.

In the run-up to the actual vote, Will Moy said that it was “too soon” to know if a “Trump-induced crisis of fact-checking” had reached the UK, and argued that the referendum would be a litmus test for the future of political discourse in the UK.<sup>76</sup> Either there would be a civil debate between two sides, or two sides avoiding debate with each other. It seems that the latter prevailed.

### 3. EXPLORING OTHER INITIATIVES

Fact-checkers and other researchers are well aware of the limits of their current models and are working together to update them. In particular, they are looking at ways to broaden their audience via TV and to harness technological innovation in order to target specific actors and echo chambers and to quicken fact-checking.

#### FACT-CHECKING ON TELEVISION

---

Full Fact dedicated a large amount of its pre-referendum efforts to getting its research onto television. It is not alone—television is increasingly being recognised as the “next frontier” for fact-checking.<sup>77</sup> In particular, television is seen as a way to engage a far larger audience and to engage those who would not usually go out of their way to find fact-checking content.

Some fact-checkers have already made progress with moving onto television. For example, Cristina Tardaguila, director of Brazilian fact-checking agency Lupa, has appeared on GloboNews to fact-check information regarding the recent Zika virus outbreak in Brazil. Lupa often uses graphs and eye-catching data in its online reports to engage readers, and Tardaguila lamented that, on television, it was hard to make healthcare statistics exciting without such graphs.<sup>78</sup> One of the most important lessons fact-checkers from around the world have learned from their forays into television is the need to make fact-checking good entertainment; otherwise, networks will not run it.<sup>79</sup>

Other successful examples of fact-checking on television include the Spanish *El Objetivo* and the Italian *Virus*. *El Objetivo* concentrates on politics and economics. It is hosted by Ana Pastor, a popular journalist known for her blunt interviewing approach. According to Reporters Without Borders, Pastor was let go from her previous job despite strong ratings following political pressure from the Conservative government.<sup>80</sup> Pastor tweeted at the time that she had been fired for doing her job, while Televisión Española (TVE) claimed she had turned down an offer from the new management.<sup>81</sup> As Poynter notes, it is “unsurprising that a blunt host would make fact-checking a key aspect of her latest show”, which launched in June 2013.<sup>82</sup>

The Italian *Virus* show was particularly engaging as it involved a television presenter talking with (not interviewing) a fact-checker, and at the same time the screen was overlaid with explanatory graphics. These graphics changed as the fact-checker’s analysis moved on, so that there was always a visual aid to the story.<sup>83</sup> The combination of live interaction between fact-checker and presenter, live graphics, and a pre-made fact-check segment (much like a news report) made engaging television.<sup>84</sup> When the segment was later uploaded to Rai.tv’s website, it was dubbed with English subtitles, which helped to increase its reach post-broadcast. Despite its popularity—the show had over 20,000 likes on Facebook<sup>85</sup> and reached over one million viewers on its more popular episodes<sup>86</sup>—the show was cancelled in June 2016.<sup>87</sup> Nevertheless, Pagella Politica, the fact-checkers working with *Virus*, are due to return to television in the autumn.<sup>88</sup>

ABC Fact Check, an Australian outfit, was launched in August 2013 to fact-check that year's federal election. Before it was shut down in 2016 due to a lack of funding,<sup>89</sup> it presented its video work with one presenter on camera and animations which explain the data in concise ways. The video segments are short—usually no longer than 90 seconds—and end by awarding a claim one of ABC's ratings.<sup>90</sup> These ratings are more nuanced than the American-style Truth-O-Meter. They are a broad palette of qualitative tags within a more classic "meter". Ratings are grouped as "In the Red", "In the Green", and "In Between", but a vast array of possible designations are possible. To give an example, "ratings in the red include 'Incorrect', 'Doesn't Check out', 'Exaggerated', 'Ill-informed', 'Untenable', 'Misleading', 'Baseless', and 'Wrong', none of which is necessarily worse than one another".<sup>91</sup> Russell Skelton, editor of ABC Fact Check, explained that the multiple categories were chosen since "the verdict words should fit the finding rather than be shoehorned into a contrived category".<sup>92</sup>

Longer segments (about ten minutes) integrate more traditional interview formats into the fact-check process. At the end of the television segment, the presenter can advise interested parties to seek out the more detailed, long-form web article for more information. ABC's online presence also includes a "Promise Tracker" which Poynter has labelled the best in the world. In this way, the television segment acts as a point of entry while the website offers broader (and deeper) analysis. Different mediums are used to attract different audiences.

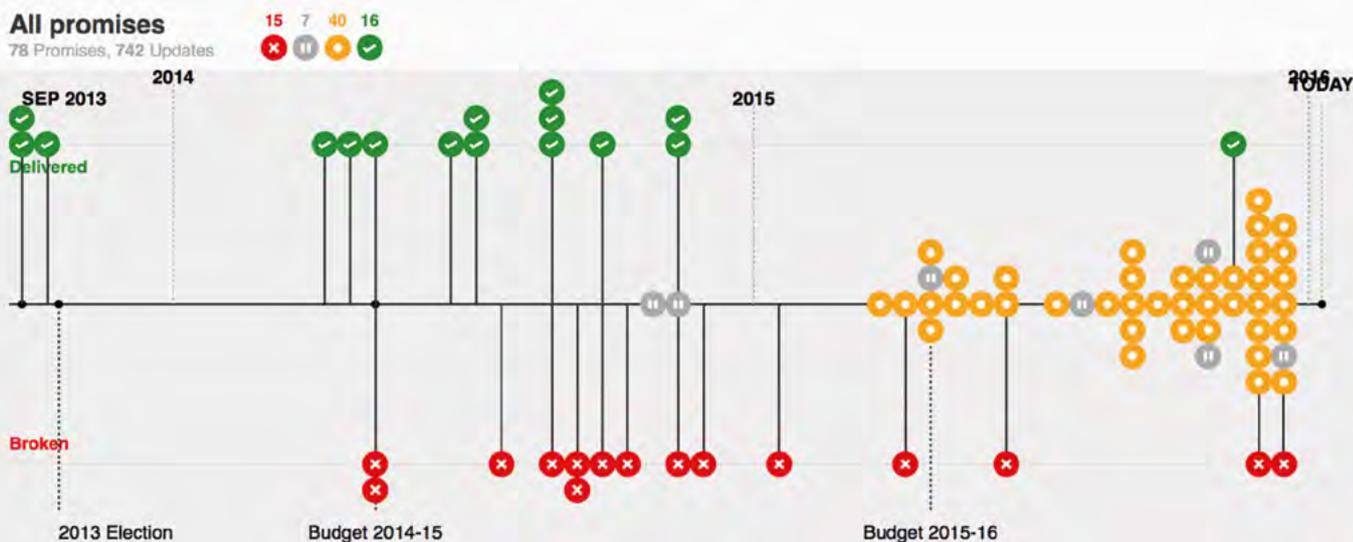
Fact-checkers work together across international boundaries (and through language barriers) to improve their television appearances. The Poynter Institute has dedicated significant time to the television question in 2016 and has been instrumental in making lessons from the non-English-speaking world accessible to fact-checkers in the Anglosphere.<sup>93</sup> These lessons include how to make engaging, entertaining fact-checking content through the use of graphics and informed presenters. Indeed, Spanish- and Italian-speaking fact-checkers, like those on *El Objetivo* and *Virus*, have more experience in television, at least in part because the institutional framework which Full Fact relies on (including the BBC, which is designed to be impartial and independent of regulators) does not exist in these countries.

Private news networks have also tentatively engaged in fact-checking, although this clearly carries more concerns regarding objectivity. For example, CNN recently used a chyron (caption) to instantly fact-check Donald Trump, which ran underneath a video of his speech; it read: "Trump: I never said Japan should have nukes (he did)."<sup>94</sup> While this was not done live, even adding this chyron into replays of the speech reached many more people than online fact-checking.

## TECHNOLOGY

---

Television is not the only technological avenue that fact-checkers are exploring. For some, technological advances also promise to increase the speed, reach, and efficiency of fact-checking. If you can quickly correct a claim (so the logic goes), then it has less time to spread. According to researchers from the University of Indiana and the Chinese National University of Defence Technology, the time between a claim being spread and a fact-check being published is at best 12 hours.<sup>95</sup> This can be cut down by using computers to automatically spot (and counter) claims when they appear. Moreover, the process can be made more efficient by using technology to map out key target audiences for fact-checkers to engage with in order to penetrate echo chambers. In short, the whole process of fact-checking—from identifying a claim, conducting a check, and publishing that check—can be improved through technology that makes it automatic.



### Streamlining the process

Full Fact has recently published a thorough report on the state of automation for improving fact-checking which shows that useful tools for automating the process are “months, not years, away”.<sup>96</sup> The report outlines four stages of fact-checking and explains the automated tools Full Fact uses and their limitations in conducting each of these stages. The stages are: “Monitor” [the information marketplace], “Spot Claims”, “Check Claims”, and “Publication” of fact-checks.<sup>97</sup> Of course, the “Monitor” and “Spot Claims” sections overlap somewhat, and the first three stages could be taken together as the process of “performing a fact-check”. The final stage is more about ensuring that the fact-check reaches its intended audience. The monitoring and spotting stage of fact-checking requires computers to “read, listen to or watch” huge amounts of content in order to monitor public debate and to identify claims that need to be fact-checked.<sup>98</sup> Computers are much faster than humans at searching through large amounts of data, although there is still some difficulty in identifying video or audio material.<sup>99</sup> *Hawk* is Full Fact’s “monitoring and

Above: ABC Fact Check’s Promise Tracker. Each of the circles can be hovered over for a pop-up which explains each individual promise and its progress.

Source: [www.poynter.org/2016/fact-checking-on-tv-australias-abc-fact-check/391234](http://www.poynter.org/2016/fact-checking-on-tv-australias-abc-fact-check/391234).

claim recognition engine". It reads content online to search for claims which Full Fact has already checked and for statements which look like claims that need to be checked. It is fairly straightforward to teach a program to identify the structure of claims ("X is rising" or "So and so voted for such and such").<sup>100</sup> It is harder—but ultimately more useful—to teach computers "machine learning" so that they can spot claims constructed in more complicated sentence structures. One of the most advanced tools for this is called ClaimBuster,<sup>101</sup> which uses machine learning to look at "known check-worthy sentences" (identified by a human initially), and then identifies "features they have in common, and looks for these features in new sentences".<sup>102</sup> Machine learning is not quite at the stage of being practically useful for fact-checkers; most bots still need significant human oversight.

In light of this, Full Fact's *Hawk*, and the associated *Stats* program, are built with more practical aims in mind. *Stats* is a tool for automatically checking statistical claims and is a proof of concept, so has yet to be scaled up to the industrial scale that would ultimately be required.<sup>103</sup> It relies on existing data against which to check these claims and, for the moment at least, needs to be specifically programmed to know where to look for these data. As part of Full Fact's work towards automating the checking of claims, a lot of effort has been put into standardising the way institutions such as the UK's Office for National Statistics presents its data. In this way, programs such as *Stats* can refer to better-classified data to make more accurate statistics-based fact-checks.<sup>104</sup>

According to Full Fact's report, the final stage of the fact-check process is the creation, publication, and dissemination of the actual fact-check. Automated tools could help fact-checkers deliver real-time fact-checks.<sup>105</sup> These would ensure that the same audience that heard or read the original claim would see the fact-check immediately. In this way, real-time automated fact-checking could nip rumours in the bud before they spread. In the case of real-time fact-checking, we have already seen that fact-checkers are working on ways to check television. Online, the *Washington Post* has demonstrated *Truth Teller*, which provides automated fact-checking annotations for video clips and compares statements with previously completed human fact-checks from American fact-checking outfits to rate them as true or false.<sup>106</sup> Taking a slightly different tack, Full Fact has developed *Robocheck*, which ultimately aims to build on these innovations by providing subtitles on live television and adding verdicts to claims as they are made using the results from *Stats* and *Hawk*.<sup>107</sup> In the matter of accountability, *Robocheck* would clearly also help journalists to hold politicians to account in real time.

## Audience Analysis

More broadly, automation could also help fact-checkers to monitor the impact of their work. Developments such as Full Fact's *Trends* could help fact-checkers understand their audiences, help journalists find rumours early on, and improve their own dissemination techniques to influence their audiences. *Trends* is fundamentally a tracking tool which helps Full Fact "target, scale and evaluate" its work by providing a graph of how frequently claims have appeared over time and where the claim appeared. Rather than scaling up the dissemination of eye-catching visuals, this type of automation is designed to empower humans (journalists, for example) to demand better standards of those in the public arena through the development of data banks about rumours which can be used to identify those who repeatedly spread misinformation and to correct common rumours quickly. *Trends* could also help Full Fact determine which rumours are so serious that it needs to intervene by directly asking for corrections from responsible parties, or it could help journalists prioritise which

	1	2	3	4
	Monitor	Spot Claims	Check Claims	Create and Publish
HAWK	Yes	Yes		
STATS		Yes	Yes	
TRENDS				Yes
ROBOCHECK				Yes

rumours to debunk themselves. Tools like *Trends* also help fact-checkers better understand the make-up of their audience and how their audience interacts with their fact-checks. With this information, fact-checkers could evaluate their dissemination processes to ensure that they reach the people who need to see the fact-check the most.

*RumorLens* is a tool similar to *Trends* that allows us to see these developments in action. Researchers at the University of Michigan have developed *RumorLens* as a tool which tracks how far misinformation spreads online, and whether correction efforts reach the same audience.<sup>108</sup> It identifies tweets which seem to be about a particular topic, and then, following a period of human supervision in which the human identifies which tweets are propagating a rumour and which are debunking it, *RumorLens* can visualise the vast amount of data it collects into a series of diagrams. These ultimately allow analysts to understand how rumours travel online and whether corrections are effective. Such visualisations can take the form of either Sankey or network diagrams. As one of the lead researchers on the project has written, the tools “make efficient

Above: Full Fact’s automation prototypes for each stage of fact-checking.

Source: [https://fullfact.org/media/uploads/full\\_fact-the\\_state\\_of\\_automated\\_factchecking\\_aug\\_2016.pdf](https://fullfact.org/media/uploads/full_fact-the_state_of_automated_factchecking_aug_2016.pdf)

use of human labor to assess whether a rumor's content is interesting enough to warrant further exploration, to label tweets as spreading, correcting, or unrelated to the rumor, and to analyze the rumor visually".<sup>109</sup>

### Penetrating Echo Chambers

Automation can also help fact-checkers penetrate echo chambers through audience analysis. *RumorLens* could be a useful tool for this. It is able to show the approximate contours of online echo chambers which did not see the fact-check because it was not re-tweeted by anyone in their network. When it comes to mapping echo chambers, however, tools like *Hoaxy* may offer more promise. Unlike *RumorLens*, *Hoaxy* is designed to automatically track both accurate and inaccurate information flows in order to map out the key networks responsible for the dissemination of the relevant information.<sup>110</sup> In other words, while *RumorLens* requires significant human supervision and tracks rumour diffusion after the event, *Hoaxy* is designed to be more independent and to track rumours in real time. *Hoaxy's* preliminary results have suggested an "interesting interplay between fake news promoted by few very active accounts, and grass-roots responses that spread fact-checking information several hours later".<sup>111</sup> In the future, the researchers plan to profile these "active spreaders" of misinformation. Once they have been profiled, the results suggest that fact-checkers could target these key "opinion formers" in order to stem information flows, rather than simply putting their information into the information marketplace.

Other researchers have found that these opinion formers are active within their echo chambers across various topics.<sup>112</sup> In a study of the activity of conspiracy theorists on the Italian-language Facebook, researchers found that the most prolific commentators in Facebook echo chambers were active across topics as varied as geopolitics, the environment, and health. In other words, key opinion formers do not necessarily stick to one area of expertise—rather, homogenous echo chambers seem to prioritise the voices of certain dominant individuals across all topic areas. Thus, if these individuals could be identified through observatories like *Hoaxy*, fact-checkers could improve their efficiency by targeting these key nodes in information networks.

These key opinion formers are not necessarily conspiracy theorists embedded in echo chambers. Another initiative, Emergent.info, which has since been discontinued, tracked how established media organisations report on misinformation.<sup>113</sup> Craig Silverman, lead researcher on the project based at the Columbia School of Journalism, found that there was a "low bar" for the sharing of questionable content.<sup>114</sup> His preliminary findings suggest that, once published, other news organisations tend to share stories without verifying them.<sup>115</sup> This issue is compounded by the fact that, according to Emergent, organisations that do not publish unverified claims are characterised on the media landscape as being silent, rather than as standing up to false claims. In this way, organisations that share false information monopolise the information marketplace.<sup>116</sup>

### Audience Engagement

As well as understanding and penetrating echo chambers, automation can be used to build loyalty among those whom fact-checkers already reach. Fact-checkers outside the Anglophone world are investigating whether automation could be used to develop audience engagement. Univision's Spanish-language outfit, Detector de Mentiras, launched an app, which will automatically send

a message to subscribers' mobile phones explaining whether a currently trending claim is true or false.<sup>117</sup> To make this happen, Univision, the parent company of Detector de Mentiras, forged a partnership with Purple, an SMS bot service that sends election news.<sup>118</sup> The service works by sending subscribers (who have signed up online or sent Univision a text to register interest) a text message which contains a fact-check in the form of a question, usually true or false. When the user replies, the bot then sends the follow-up text to the subscriber, which contains the answer to the preceding question. In this way, the bot encourages two-way interaction between fact-checker and user. On the launch night, approximately 250 people signed up to the service, and only a few have since dropped out.<sup>119</sup> More importantly, some users have "engaged beyond using the key words that trigger the automatic responses, sharing more about what they think of the claims and asking additional questions".<sup>120</sup> When users seek more information than the bot can give, the team can respond with personalised answers. The app thus engages the audience more deeply than it could by simply putting information into the information marketplace, and the conversational nature of the engagement encourages critical thinking. The model is still in its infancy, but it nevertheless represents a novel way for technology to increase the chances of human-to-human, fact-checker-to-citizen engagement.

Other apps, however, have failed to attract subscribers. Chequeado, a fact-checking organisation in Argentina, tried to build an app in 2014, but it did not have enough money to carry the app through to completion or, even more importantly, to maintain it with substantial and frequent post-release patches (pieces of software designed to update and improve computer programs or their supporting data).<sup>121</sup> Quite apart from the high cost of app development, digital users increasingly expect dialogue with app developers, and fact-checking apps in particular will need to continually reassure their users of their independence in order to maintain a loyal user base. Fact-checkers' experience to date with apps has shown that they are expensive and time-consuming and require detailed planning to succeed.

While computers "won't replace journalists" any time soon,<sup>122</sup> they can clearly make fact-checking more efficient. In a hypothetical example, the process could proceed as follows: a monitoring program such as *Hawk* picks up a sentence which looks like a claim and flags it for attention. A reference tool like *Stats* checks whether there are relevant statistics or pre-existing fact-checks which could disprove the rumour even before a human addresses it. Armed with this information, the process of writing the fact-check could be accelerated significantly. A tool like Full Fact's *Trends* could then be used to identify who has seen the rumour and fact-checkers could try to target these audiences. To do this, bots could "continue to report indefinitely on a topic", which could be useful in repeatedly putting fact-checks into the information marketplace.<sup>123</sup> Of course, such bots would need careful, constant monitoring at this stage since semi-autonomous bots have already met with some high-profile disasters. (Examples include the *Darknet Shopper* bot, which was programmed to randomly spend \$100 a week on Agora.com and eventually purchased drugs,<sup>124</sup> and Microsoft's *Tay*, which learned through interaction with users to be racist and sexist.)<sup>125</sup> In principle, though, automated tools could clearly improve the fact-checking process from start to finish.

## ANNOTATION AND CROWD-SOURCING

---

While one set of solutions for fact-checking stresses technology and automation, another approach relies more on the power of humans to crowd-source initiatives.

Facebook, for example, has reduced the circulation of stories flagged as “fake” by online communities. On January 20, 2015 the company published a blog post which outlined the changes.<sup>126</sup> Users were given the option to flag a news item as false, which works in the same way as pre-existing tools for reporting a spam story. When users click to hide a story, they also have the option to report the content. Since January 2015, the algorithm which decides what information appears on a user’s News Feed has taken into account when “many people flag a post as false”. As the blog post explained, while Facebook is “not removing stories people report as false” or “reviewing content and making a determination on its accuracy”, this tweak will mean that a “post with a link to an article that many people have reported as a hoax” will get “reduced distribution in News Feed”. Even when they do appear in a News Feed, posts that are reported many times will be “annotated with a message warning people” that other users have reported it.<sup>127</sup> As Meedan’s Tom Trewinnard, an expert in verification, noted last year, the tool could be improved to allow users to highlight precise passages which are incorrect or misleading.<sup>128</sup> Brad Scriber of *National Geographic* suggested that once a claim is highlighted as problematic, Facebook could alert other users who would be about to share the story that it has been flagged as false.<sup>129</sup> While users would be free to ignore the warning, it would probably result in reduced sharing.<sup>130</sup>

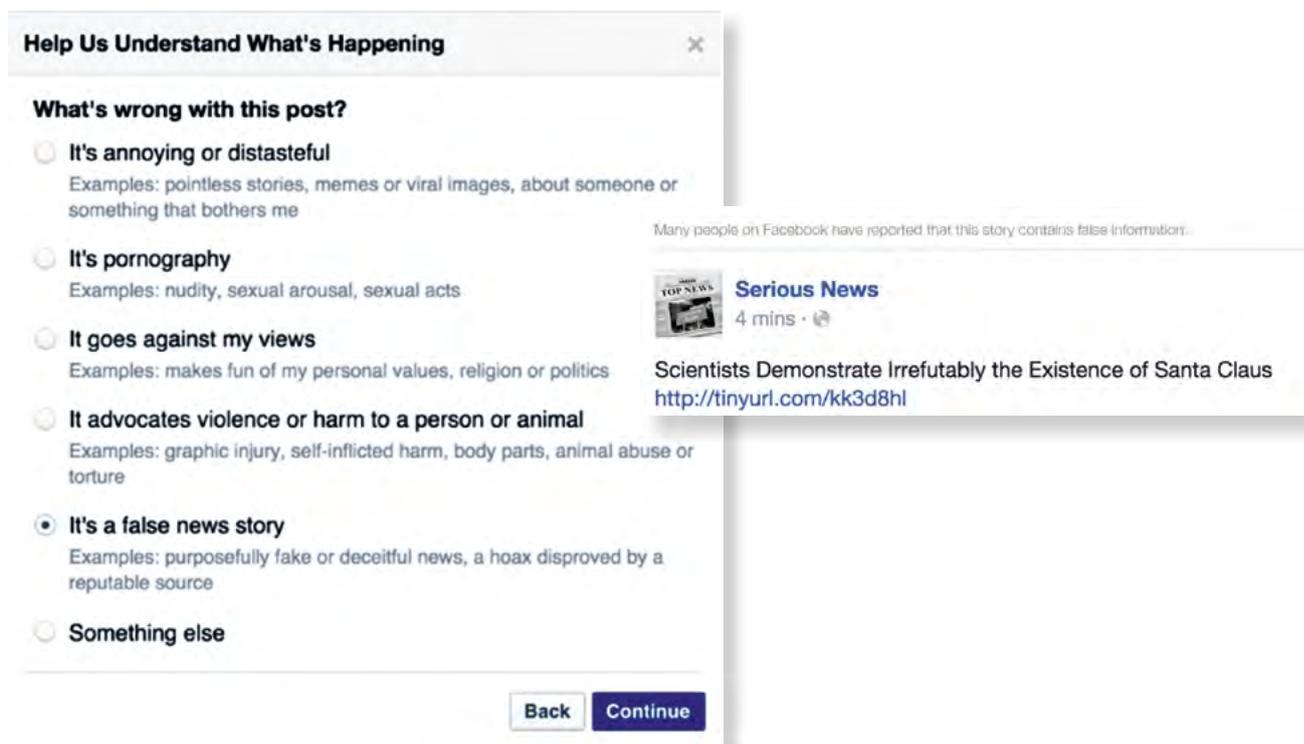
A Facebook spokesperson has told Poynter that Facebook maintenance is fundamentally user-driven. As a result, a critical mass of users need to pressure the site from the bottom up. It is not clear that user-driven models like this are up to the challenge. Allen Montgomery, proprietor of the fake news site *National Report*, is confident that such measures will “never stop misinformation or fake news” since it takes far less time to establish fake news sites than it does for a critical mass of users to report them.<sup>131</sup>

Annotation is another crowd-sourced fact-checking method. It offers a way to immediately cross-check claims made by journalists online with a database of already performed fact-checks. The basic idea is that, whenever a user reads an article, there is an option to “turn on” annotations on the article given by a community of experts. By hovering over a claim word, users would make the relevant annotation explaining the flaws in either the data or the interpretation of the data pop up on the side of their screen.

Perhaps the most famous example of this was when the UK-based newspaper *The Telegraph* was forced to revise the text of a particularly misleading story which claimed that the Earth was “heading for a ‘mini ice age’ within 15 years”.<sup>132</sup> The annotators behind this success were volunteers for Climate Feedback,<sup>133</sup> a scientist-led effort to “peer review” the world’s climate journalism.<sup>134</sup> The tool they used was *Hypothes.is*, a browser extension that acts as a peer-reviewed annotation service for the Internet.

However, other experiments with annotation have been less successful. PolitiFact live-annotated the 2015 State of the Union<sup>135</sup> using the annotation platform *Genius*,<sup>136</sup> but the fact-checkers’ own annotation was lost in the mass of annotation from the general public.<sup>137</sup>

*Genius* has also been criticised for facilitating online abuse through its free-to-use and unrestricted annotation tool. In March 2016 a sitting member of Congress wrote to *Genius* CEO and co-founder Tom Lehman to express concerns that *Genius* lacks “safeguards against Internet harassment and abuse”.<sup>138</sup> A young female writer, Ella Dawson, explicitly asked for controls over who could annotate her content after *Genius* news editor Leah Finnegan “annotated” Dawson’s article with annotations which questioned whether Dawson’s identification as a “stigma reduction activist” was “a real job”.<sup>139</sup> Currently, there is no way for an author to prevent would-be annotators from using *Genius* on their



site.<sup>140</sup> To avoid similar problems, *Hypothes.is* is working on an optional feature that will make annotations open for public reading but closed for public comment, which will help to ensure quality control over content.<sup>141</sup>

Annotation that relies on users downloading their own browser extensions will, by its very nature, only reach a limited audience, the majority of whom are likely to already be thinking critically about their news consumption. The speed of annotation is another problem: by the time an article is annotated, it has often fallen off the news cycle. *Hypothes.is* believes that it can combat this by building “communities of experts” who can use their expert knowledge to quickly annotate.<sup>142</sup> Full Fact has similarly developed a community of experts who have helped to speed up the process of fact-checking. Ultimately, annotation as a tool is perhaps most effective when aimed at an article’s original author. As Dan Whaley, founder of *Hypothes.is*, has argued, their aim is not to reach thousands of people but to “make it more and more uncomfortable for journalists and others to write articles that don’t stand up to analysis, and for publishers to support them doing so”.<sup>143</sup>

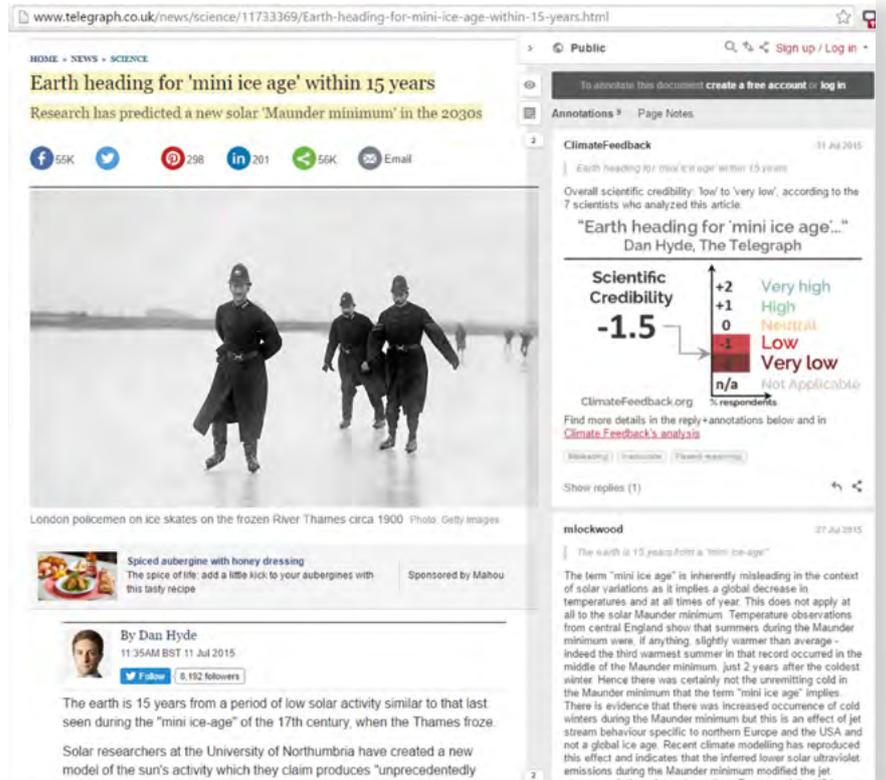
*Above: Left:* The updated options available to a user when they report a post on Facebook.

*Right:* How the new annotations look in Facebook.

Source: <http://newsroom.fb.com/news/2015/01/news-feed-fyi-showing-fewer-hoaxes/>

Top: *The Telegraph* article with annotation by Climate Feedback. To see these annotations, users have to have previously added the Hypothes.is extension to their Google Chrome internet browser. (Other users can download it elsewhere.) Clicking on the icon for this extension (in the top right of the image) in the Chrome extension bar brings out the annotations. As users scroll through the article, the annotations scroll to keep up. In the above example, “mlockwood” has commented on the title of piece, and so the title is highlighted and his comments are visible in the same window.

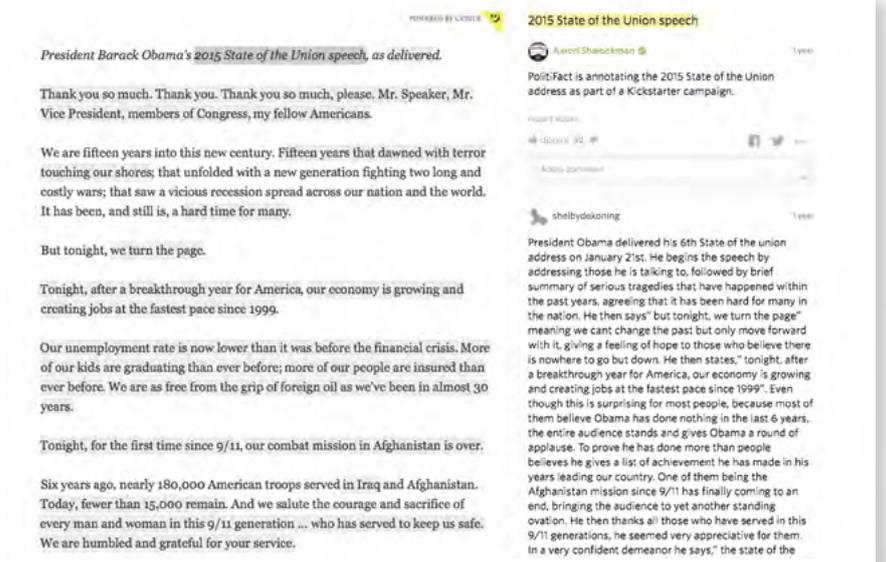
Source: <https://via.hypothes.is/http://www.telegraph.co.uk/news/science/11733369/Earth-heading-for-mini-ice-age-within-15-years.html>



The screenshot shows a web browser displaying a Telegraph article titled "Earth heading for 'mini ice age' within 15 years". A Climate Feedback annotation is overlaid on the right side of the page. The annotation includes a scientific credibility scale ranging from -2 (Very high) to -1.5 (Low), with a red bar indicating the current score. Below the scale, there is a comment from user "mlockwood" dated 27 Jul 2015, which discusses the term "mini ice age" and its context. The article text visible includes: "The earth is 15 years from a period of low solar activity similar to that last seen during the 'mini ice-age' of the 17th century, when the Thames froze. Solar researchers at the University of Northumbria have created a new model of the sun's activity which they claim produces 'unprecedentedly".

Bottom: PolitiFact’s attempt to annotate the State of the Union address in 2015 was undermined by members of the public also annotating. In this screenshot, the first actual annotation is from user “shelbydekoning”, rather than the PolitiFact team. Aaron Sharockman, from PolitiFact, later asks other users to refrain from commenting on the page, but this has no effect. As a result, professional fact-checking may become equated with opinion, and experts given the same influence as non-experts.

Source: <http://www.politifact.com/truth-o-meter/article/2015/jan/20/barack-obamas-2015-state-union-address-annotated/#annotations:4757207>



The screenshot shows a PolitiFact page titled "2015 State of the Union speech". The page displays the text of the speech with several annotations from users. The first annotation is from user "shelbydekoning" dated 1/20/15, which says "President Obama delivered his 6th State of the union address on January 21st. He begins the speech by addressing those he is talking to, followed by brief summary of serious tragedies that have happened within the past years, agreeing that it has been hard for many in the nation. He then says 'but tonight, we turn the page' meaning we can't change the past but only move forward with it, giving a feeling of hope to those who believe there is nowhere to go but down. He then states, 'tonight, after a breakthrough year for America, our economy is growing and creating jobs at the fastest pace since 1999'. Even though this is surprising for most people, because most of them believe Obama has done nothing in the last 6 years, the entire audience stands and gives Obama a round of applause. To prove he has done more than people believes he gives a list of achievement he has made in his years leading our country. One of them being the Afghanistan mission since 9/11 has finally coming to an end, bringing the audience to yet another standing ovation. He then thanks all those who have served in this 9/11 generations, he seemed very appreciative for them. In a very confident demeanor he says, 'the state of the". Other annotations include one from "Aaron Sharockman" dated 1/20/15, which says "PolitiFact is annotating the 2015 State of the Union address as part of a Kickstarter campaign.", and another from "shelbydekoning" dated 1/20/15, which says "Thank you so much. Thank you. Thank you so much, please. Mr. Speaker, Mr. Vice President, members of Congress, my fellow Americans."

## 4. CHALLENGES TO FACT-CHECKING

### ECHO CHAMBERS

---

Despite the technological advances outlined above, fact-checkers' own initiatives are some way off being operational. They do not, as yet, have scaled-up systems in place to track the passage of their fact-checks online. This means that fact-checkers often do not know if their fact-checks are reaching those who were originally duped by the misinformation or whether they remain locked in (dis)information echo chambers. According to Walter Quattrociocchi of the Institute for Advanced Studies at Lucca, people "like to feel comfortable about the world", and as a result they like to associate with people who validate their pre-existing beliefs.<sup>144</sup> This tendency to seek out comforting narratives can also be seen in the prevalence of homogenous clusters online—echo chambers.

Quattrociocchi and his colleagues have found that "homogeneity" is the "driver of information diffusion". In other words, people get their news from their close-knit, ideologically similar clusters online. Existing alongside one another, these echo chambers are internally defined by their homogeneity: most members share the same prevailing worldview and interpret news through this common lens. As Quattrociocchi has written, there are "different echo chambers, characterised by a high level of homogeneity inside them".<sup>145</sup> According to the authors of a recent report on how misinformation spreads, this clustering into like-minded siloes leads to the "proliferation of biased narratives fomented by unsubstantiated rumors, mistrust, and paranoia".<sup>146</sup> Social media echo chambers also play an important role in strengthening violent extremist groups. As Charlie Winter, an expert on ISIS, has written, social media echo chambers can act as a catalyst for radicalisation as they reinforce "already held sympathies".<sup>147</sup> Indeed, the rise of Islamic State prompted many governments to "re-examine their approach" to countering echo chambers, and in recent months governments and social media companies have explored ways to limit the impact of these information siloes.<sup>148</sup> Clearly, echo chambers are central to the proliferation of misinformation online, and the patterns of information-sharing within these clusters suggest that "algorithmic tweaks to search engines" will not, by themselves, lead to substantive change, partly because key voices in these echo chambers are likely to continue to seek out and share misinformation in their networks.<sup>149</sup> Fact-checkers need to penetrate these echo chambers if they are to have any impact on the information marketplace at all.

Part of the problem with echo chambers is that, even if fact-checkers could present the facts, there is no guarantee that these facts would then change the target audience's minds. Researchers from the Universities of Illinois, British Columbia, and New York have investigated "motivated reasoning", the name given to the phenomenon by which "people's evaluations of new information are shaped by their beliefs".<sup>150</sup> They argue that "politics does not provide common standards or criteria by which citizens *can attribute meaning to given facts*" (emphasis added). For example, when forming opinions on the Iraq War, people "cannot turn to a manual to determine if 50 troop casualties represent a big, moderate, or small loss", or, indeed, whether American lives are worth what they are fighting for.

Rather, individuals have to interpret the fact (the number of troops killed) in order to understand it. They will “either make the interpretations themselves or let others—partisan politicians, for instance—do it for them”.<sup>151</sup> Furthermore, researchers from Colorado State University and the University of Minnesota have found that individuals who know more about politics, but do not trust the political system, are more likely to engage in motivated reasoning to force reality into their worldview.<sup>152</sup> D. J. Flynn, a post-doctoral fellow at Dartmouth College, has found that individuals are able to prioritise their motivating factors—they are aware that certain bits of information are pivotal for the viability of their worldview, so they hold onto this information even in the face of evidence to the contrary.<sup>153</sup> The misinformation problem is not simply that individuals do not know enough “facts”; it is that they interpret them—or allow a trusted third party to interpret them—to suit their own worldview. In short, misinformation is convenient.

A four-year research project conducted by the Institute for Advance Studies at Lucca showed that when scientific facts were directed at Facebook echo chambers dedicated to conspiracies about vaccines, the conspiracy believers doubled down on their beliefs. This is known as a “backfire effect”. As the director of the project Walter Quattrociochi argues, people go on social media to confirm their previous biases, and reject objective information that does not fit with their biases.<sup>154</sup> Moreover, cognitive patterns in echo chambers tend towards polarisation, as members reinforce each other’s beliefs and push them to more extreme positions. This is similar to what has been called “group polarisation theory”, which is the phenomenon by which individuals come to reach more extreme conclusions in groups than they would have reached by themselves.<sup>155</sup>

Trust is another key variable in determining whether an individual believes misinformation. As Nyhan and Reifler have argued, individuals tend to value new information based on whether they “trust” the source.<sup>156</sup> This has obvious implications in the case of homogenous echo chambers. Key opinion formers, or nodes, in an individual’s social news network can set the agenda of the entire echo chamber since they represent a trusted voice within these communities. Conversely, if individuals do not trust sources of information, they are more likely to reject what is being said out of hand without engaging with the underlying logic or argument. Indeed, the lack of trust in UK politics in 2016 undermined the work of fact-checkers. As Will Moy, director of Full Fact in the UK, has said, it seems that “both [Remain and Leave] campaigns have damaged trust enough that even when they [politicians] are right in what they’re saying, many people won’t listen”.<sup>157</sup> When no one is legitimate, it is hard for anything to be true. Indeed, Miller, Saunders, and Farhart have argued that the people who are most likely to believe conspiracy theories online are those who do not have trust in an overriding political system, and are instead certain that a few high-profile, unaccountable, and invisible actors determine world politics.<sup>158</sup> Fact-checking in its current form will struggle to make these individuals trust in politics again, especially if they hope to simply assert the “truth” to this sceptical audience.

Even if all the above problems were solved, the process of deciding who to vote for, and indeed the process of forming opinions, are about more than just facts. Professor Brian Gaines of the University of Illinois and his colleagues have devised a useful model for understanding the role of fact-checking in the opinion-forming process.<sup>159</sup>

Model **A**, called Complete Updating, represents complete “updating” of an individual’s beliefs. As reality changes, people change their factual beliefs, maintaining reasonable accuracy; in turn, they alter their interpretations in the corresponding direction; and finally, they update their opinions on the basis of this new interpretation.

Fact-checking, it should be clear, tries to remedy Model **B**: Fact Avoidance. In this model, individuals “do not change their factual beliefs when facts change”.<sup>160</sup> As a result, these individuals’ worldviews are largely—if not totally—unchained to changing facts. This is probably the result of “accidental or wilful ignorance”.<sup>161</sup> Implicit in most fact-checking efforts is the idea that putting correct information into the information marketplace will turn “Fact Avoiders” into “Complete Updaters”. However, as has been explored above, individuals hold worldviews largely because it helps them to understand the world. The comfort drawn from this understanding can be bolstered by surrounding oneself with a network of people who feel similarly about the world. As a result, it is by no means clear that putting facts into political discourse will cause a shift towards Model **A**.

Model **C**, Meaning Avoidance, describes when “people update their beliefs as reality changes, but then decline to change their interpretations”, which leaves “their initial opinions intact”.<sup>162</sup> In the above example of war casualties, such an individual might recognise that the casualty rate had increased tenfold but still consider this number low. In Model **D**, Opinion Disconnect, individuals update their beliefs and interpretations, but disconnect them from their opinions.<sup>163</sup> This model could be used to describe an individual who maintains their political position because of “intense partisan loyalty”.<sup>164</sup> In both Models **C** and **D**, individuals maintain their beliefs for reasons other than ignorance of the facts. Indeed, in these models, they have the facts, but maintain their original belief anyway. These models underline how decision-making is a complicated process, with social and emotional aspects.

Fact-checkers, therefore, will have a limited impact if they restrict their activities to simply putting facts into the public sphere. Indeed, as discussed previously, the very idea of one public sphere is in doubt. When liberals and conservatives can exist without interacting with one another, they can continue to select information which supports their worldview. It is worth noting, too, that echo chambers are not “solely the domain of extremists and paranoids” but affect all online users.<sup>165</sup> In short, fact-checkers need to dedicate time and effort to penetrating echo chambers—and not necessarily just the most extreme ones.

## SUSTAINABLE BUSINESS MODELS

One of the key challenges facing fact-checkers in 2016 is the need to develop a sustainable and scalable business model. According to Will Moy of Full Fact, there are three main areas where fact-checkers can try to secure sustainable funding.<sup>166</sup> The first is individual funding, which helps preserve independence but is “not an attractive prospect” since other charities have failed to live on individual subscriptions. Trust funds are another source of funding, but these will eventually run out. Fact-checking organisations are therefore left with the need to earn money directly. This means that small non-profits like Full Fact are having to establish small for-profit operations which make enough money to fund the non-profit part. Full Fact has started a data consultancy operation in this vein which helps data-handlers communicate and store their data better. The work is good, but Moy argues that it is a distraction from the main business and could risk being counterproductive in the short term. As he explains, to build the data consultancy into a viable business Full Fact would have to hire more people and invest time in training a larger team at a time when it is already operating at full capacity. Part of the problem with for-profit models of fact-checking is that these profits also have to be used to run the for-profit part of the company. As a result, the non-profit (fact-checking) side of the company risks being squeezed and receiving less money than it does

now. According to Moy, for its data-analysis branch to make enough to support its fact-checking efforts single-handedly, it would have to make about five times as much as the worth of its current grants.<sup>167</sup> As a result, moves to for-profit models are stuck in an uncomfortable limbo where grant money is limited, and this restricts headroom and organisation growth, but at the same time there simply is not the time or personnel to develop a fully fledged for-profit sister company. In the meantime, Full Fact is trying to find a way to scale up its organisation and maintain momentum. It envisages drawing on some of the lessons it has learned outside the virtual space. It hopes to teach its methodology not only to journalists but also to schoolchildren, so that future consumers of news are taught the skills of critical reading and thinking. It also hopes to identify which of its systems are “transferable” to other political contexts so that other fact-checking organisations can get up and running more quickly.

There are no easy answers to the problem of generating extra revenues, but fact-checking movements are beginning to dedicate significant resources to developing various business models. David Glinch, global news editor of social news agency Storyful, has suggested that fact-checkers could investigate making fact-checking “something like a search engine”, where a reader could simply search “Hilary Clinton said this” and the results would return whether the claim was true or not. Such an initiative (or a partnership with existing search engines) could also help fact-checkers identify in real time what their audiences are most interested in finding out about.<sup>168</sup> PolitiFact has started to syndicate its content, allowing it to be reposted or republished in newspapers to supplement its income.<sup>169</sup> Full Fact has separately started to supplement its income with large research projects, including a recent report for the Joseph Rowntree Foundation on how poverty was talked about in the 2015 general election.<sup>170</sup> Meanwhile, South Africa-based Africa Check has offered its verification services to newsrooms and consultancies as one method to generate extra revenue.

## CONCLUSIONS AND RECOMMENDATIONS

As PolitiFact's Bill Adair has articulated, the staff at PolitiFact consider their audience to be "democracy".<sup>171</sup> This assertion underlines the importance which fact-checkers and researchers in the field assign to improving the quality of public debate. If electorates are misinformed, this undermines a cornerstone of democracy—an informed electorate. More specifically, the retreat into homogenous echo chambers online (and, indeed, offline) polarises society. In this situation, politics becomes a zero-sum game in which individuals are defined as either an ally or an enemy, with no variation in between. In first-past-the-post political systems such as those of the US and UK, the increased prevalence of fractured, polarised constituencies could mean that politicians no longer have to act as mediators between factions: if constituencies are partisan enough to become a 'safe seat', then politicians will not need to appeal to anyone other than their support base.

We are not in a post-fact world yet, though. People do still want neutral political information. Likewise, it is worth bearing in mind philosopher Michael Lynch's assertion that technological advances do not necessarily need to result in the breakdown of trust.<sup>172</sup> Rather, it is the human use of that technology that has led to the current situation. Thus it is human action, too, that can improve the situation.

The following recommendations are drawn from interviews with fact-checkers and researchers based in the US and the UK. Nevertheless, they are intended to be applicable in wider political contexts—with the proviso that all fact-checkers operate in unique environments and ultimately local actors are best disposed to understand these contexts.

Fact-checkers themselves have the most extensive knowledge about fact-checking, its limitations, and the possible avenues it may follow in the future. There is a remarkable amount of expertise in the fact-checking world, and commentators and funders would do well to attempt to leverage this knowledge. Indeed, the most cost-effective way to support these organisations could be to reach out to them directly. Most fact-checkers are running at full capacity just to keep up with daily corrections, but their senior staff have the expertise to know what their organisations could achieve with additional resources. With that in mind, interested parties could frame the conversation along the following lines.

### MAINSTREAMING FACT-CHECKING

---

As has been seen, fact-checking has struggled to break out of its relatively niche audience in the various countries in which it operates. In the US, PolitiFact's Linda Qiu explained that the website was "niche by default",<sup>173</sup> and the situation is replicated across the globe. This is a problem since a limited audience undermines the purpose of fact-checking as understood by PolitiFact—to introduce accurate information to the information marketplace. Moreover, as we have seen from network modelling performed through tools such as *RumorLens* and *Hoaxy*, the audience that fact-checking does reach is rarely the same audience that sees or hears the original claim being made.

Fact-checking therefore needs to mainstream its appeal. This could be achieved through: the rigorous application of commonly-accepted best practices; embedding fact-checking in a wider network of activists to push for media reform; including fact-checking in media development grants; and finally, embracing wider media literacy initiatives.

### Best Practices

Firstly, the format of the fact-check matters. According to PolitiFact's Bill Adair, fact-checks need to be packaged in a "lively and accessible" format to attract readers.<sup>174</sup> Building on this, Poynter's Alexios Mantzarlis has argued that fact-checkers should embrace transparency in order to attract—and keep—readers.<sup>175</sup> Fact-checkers should be transparent with respect to their sources and their choice of claims to fact-check in order to build trust.<sup>176</sup> Another is sustained dialogue, and fact-checkers are beginning to push for greater communication between themselves and their audiences.<sup>177</sup>

### Networked Fact-Checkers

As part of the move to mainstream fact-checking, fact-checkers need to develop relationships with other professionals involved in media reform. To this end, fact-checkers could develop relationships with journalists, editors, and even counter-extremism professionals. The move to television is likely to require fact-checkers to develop meaningful partnerships with television stations and popular, independent presenters, since professionals who have experience in television will know what works and what does not. Established fact-checking organisations have a wealth of fact-checks which could be made accessible to journalists, which could help cut down verification time and allow journalists and editors to limit the publication of untrue material. In an ideal scenario, this relationship would be such that journalists could call a fact-checking organisation with a query pre-publication and the fact-checkers would quickly send them relevant material drawn from their database, thus ensuring that what is published is accurate.

Given the prevalence of echo chambers and their role in the misinformation problem, fact-checkers could also develop relationships with counter-extremism professionals. The Institute for Strategic Dialogue, for example, is piloting one-on-one digital outreach schemes.<sup>178</sup> The scheme directly engages with vulnerable individuals over the Internet. As Charlie Winter has written, "vulnerable people are often found to be more accessible and amenable to 'counter' ideas than they are offline".<sup>179</sup> The pilot scheme was designed to be replicated by other counter-extremist organisations and as a result relies on tools "free available to all", such as Facebook Messenger. While originally designed to counter individual radicalisation into far-right or Islamist groups, the approach could be applicable to fact-checking. Fact-checkers could directly engage with individuals who regularly spread disinformation, engage in conversation with them and try to explain the process behind the fact-check in more detail. Counter-extremism professionals, meanwhile, could make use of fact-checker's research in their work.

Moving offline, counter-extremism professionals also have experience with work which aims to reduce polarisation. While not traditionally associated with fact-checking work, initiatives such as "contact across community divides" could be used to humanise those who hold different political views.<sup>180</sup>

In order to bring businesses on side, fact-checkers could raise the issue of fraudulent advertising. Advertising models based on page views have fallen victim to fraudsters using "botnets", or groups

of automated bots, to artificially drive up page views and make money from this deception. According to the Association of National Advertisers, a US trade body, "online fraud from software masquerading as genuine consumers is forecast to cost marketers up to \$7 billion" in 2016.<sup>181</sup> There is clearly a financial incentive for big businesses to join the fight against misinformation. In short, fact-checkers could work to develop more transverse (multi-directional) relationships with media institutions, counter-extremism professionals, and even advertisers to embrace a more holistic approach to fact-checking.

Where applicable, fact-checkers could enter the debate on media reform to limit the institutional capacity for misinformation to be introduced into the information marketplace. This could include developing relationships with lobbyists for media reform, with editors themselves, or even with technological giants such as Facebook and Twitter. Daniel O'Maley, associate editor at the Center for International Media Assistance at the National Endowment for Democracy, has called for an "algorithm ombudsman" to act as a watchdog over the complicated algorithms many social media sites use to curate content.<sup>182</sup> Fact-checkers could be involved in these types of discussion to ensure that any innovations that do happen would benefit citizens.

### Media Development Grants

Fact-checking could also be included in media development grants. One way to circumnavigate accusations of political bias could be for these development grants to come from entities other than governments. For example, a South African-based youth marketing agency with offices in London called Livity recently partnered with Google to set up a programme called "Digify Africa", which aims to provide some degree of training in digital life skills to a million young people across Africa. Africa Check's Peter Cunliffe Jones agreed with Livity that a segment of this programme could include a session on how to fact-check, and Africa Check and Livity are now holding discussions on how best to achieve this.<sup>183</sup>

### Media Literacy

As Africa Check's Peter Cunliffe Jones has said, the most efficient way to mainstream fact-checking is to bring it into schools.<sup>184</sup> In response to an earlier report which showed that young people were ill-equipped to spot falsehoods online,<sup>185</sup> Demos is working with 15- and 16-year-old students to show what types of arguments are made online and how they are made.<sup>186</sup> They try to present the material in the manner of a gameshow, with the presenter asking the students to contribute to interactive sessions. The presentation operates like a "digital deck" of cards, in which the presenter reveals each line of an extremist argument separately and talks through the logic (or lack of logic) behind it. On the subject of Islamic extremism, for example, they asked students to consider the false moral equivalence of statements such as "[Syrian President] Assad's crimes justify the crimes of Islamic State". Demos' Louis Reynolds reported positive takeaways from the project, saying that the students were generally responsive to these interactive, energetic lessons which touched on key contemporary issues. Demos' work teaching young people "how to spot manipulation, to counter grooming efforts" and to "spot falsehoods, online and offline" is pioneering, but to date it is remarkably isolated in the UK political scene.<sup>187</sup>

Media literacy does not need to be exclusively school-based. By promoting media literacy through entertaining television broadcasting, it would be possible to reach large audiences and, crucially, audiences that would not normally seek out fact-checking initiatives of their own accord.<sup>188</sup> Here, strategic communication professionals, broadcasters, and fact-checkers could work together to produce engaging content that promotes media literacy.

## TARGETED AUDIENCE ANALYSIS

---

Mapping echo chambers, and analysing how members of echo chambers react to information, could help fact-checkers improve how they interact with the public. Walter Quattrocio is looking to establish an “Observatory of Information Flows”.<sup>189</sup> This observatory would track information flows and analyse comments and emotional narratives, and thus map the cognitive patterns of an echo chamber. Then, Quattrocio wants to conduct experiments on the behaviour of the echo chamber by presenting information to them and charting their response. By studying the dynamics of echo chambers, fact-checkers can begin to understand how best to frame their arguments in order to penetrate closed information spaces.

### Map and Track

Fact-checkers also require more specialised tools to allow them to perform sophisticated audience analysis. Programs such as *Hoaxy*<sup>190</sup> can already track the paths of misinformation online and the progress of affiliated fact-checks. Fact-checking groups could seek to use these models to identify weaknesses in their own methods and thus to develop techniques to enlarge their audience. Perhaps more importantly, they could use these models to identify the key opinion formers in multiple echo chambers, who could act as information disseminators or advocates of critical engagement with material.<sup>191</sup> Understanding how information spreads online, through whom and to whom, is central to improving fact-checkers’ efficiency. As Alexios Mantzarlis has said, fact-checkers have no shortage of anecdotes to prove fact-checking’s effectiveness,<sup>192</sup> but they currently lack continuous data to analyse their impact across different audiences, at different times.

### Sustained Interaction

Armed with this information, fact-checkers could begin to engage more meaningfully with the audiences they do reach, and to “deepen” their relationship with these audiences. We have seen some early examples of this in the *Mentira* app, which linked automated text-messaging with a human fact-checker. Fact-checkers could continue to investigate ways to deepen their relationship with their audiences in order to gain greater trust. Will Moy has suggested that fact-checkers, rather than simply asserting their authority, could start thinking about building trust through participation. Engaging in such conversations could help fact-checkers understand why certain actors maintain their *misperceptions* even when they are no longer *misinformed*.<sup>193</sup> By developing their understanding of their audiences in such meaningful ways, fact-checkers could begin to tackle the problems of motivated reasoning and confirmation bias. In short, understanding why people hold onto their views is the crucial element of successful fact-checking, and deeper relationships are required to gain such understanding.

## AFTERWORD

These recommendations are designed to increase the reach of fact-checking and to improve its effectiveness. Central to these recommendations is the idea that fact-checkers can be agents of change in their societies. The journalistic side of their work—reaching out to new audiences, publishing new fact-checks—is hugely important, but fact-checkers could do more; they could become the catalyst of change in public discourse. As Will Moy put it, Full Fact’s work is about “finding the pea under the mattress” that makes organisations or people change the way they operate and interact with information.<sup>194</sup> The particular focus on extended networks places fact-checkers at the centre of a multi-faceted movement towards media reform. This movement could frame itself as empowering ordinary people to set the terms of public debate, and in so doing it could tap into popular disillusionment with the status quo. If power is inextricably linked with knowledge,<sup>195</sup> then fact-checkers could give power to those who feel powerless by ensuring that accurate, genuine knowledge is not only accessible to all, but predominant in political discourse.

In order to co-ordinate the diverse actors engaged in the questions of media reform and fact-checking, an independent NGO could be established. This NGO could pilot many of the recommendations put forward in this paper. For example, it could: take the lead in creating television projects which promote fact-checking in mass media; bring together researchers who have studied echo chambers and experiment with different methods to penetrate them; pioneer latest methodologies in media literacy; design a legal and regulatory framework for a Political Campaign Standards Authority or a Council of Europe body to advise on media standards. It could work to bring together advocates from different political contexts in order to more fully understand the utility of different methodologies across the globe.

## REFERENCES

1. Daniel Lansberg-Rodríguez, Berivan Orucoglu, Gary Rawnsley, Peter Pomerantsev and Abigail Fielding-Smith, "The New Authoritarians—Ruling Through Disinformation", Legatum Institute, June 22, 2015. <https://lif.blob.core.windows.net/lif/docs/default-source/publications/the-new-authoritarians---ruling-through-disinformation-june-2015-pdf.pdf?sfvrsn=4>, accessed 14, September 2016.
2. "Post-truth politics: Art of the Lie", *The Economist*, 10 September 2016. <http://www.economist.com/news/leaders/21706525-politicians-have-always-lied-does-it-matter-if-they-leave-truth-behind-entirely-art>, accessed 14, September 2016.
3. Bill Adair and Angie Drobnic Holan, "The Principles of PolitiFact, Pundit Fact and the Truth-O-Meter", *PolitiFact*, 1 November, 2013. [www.politifact.com/truth-o-meter/article/2013/nov/01/principles-politifact-punditfact-and-truth-o-meter](http://www.politifact.com/truth-o-meter/article/2013/nov/01/principles-politifact-punditfact-and-truth-o-meter), accessed 20 July, 2016.
4. Bill Adair (founder, PolitiFact), in discussion with the author and Peter Pomerantsev (senior fellow, Legatum Institute), May 2016.
5. Alexios Mantzarlis, "There Are 96 Fact-Checking Projects in 37 Countries, New Census Finds", *Poynter*, February 16, 2016. [www.poynter.org/2016/there-are-96-fact-checking-projects-in-37-countries-new-census-finds/396256](http://www.poynter.org/2016/there-are-96-fact-checking-projects-in-37-countries-new-census-finds/396256), accessed 28 July, 2016.
6. Alexios Mantzarlis, "Fact-Checkers from 41 Countries Meet in Buenos Aires This Week", *Poynter*, June 6, 2016. [www.poynter.org/2016/fact-checkers-from-41-countries-meet-in-buenos-aires-this-week/414304](http://www.poynter.org/2016/fact-checkers-from-41-countries-meet-in-buenos-aires-this-week/414304), accessed 28 July, 2016.
7. Jane Elizabeth and Alexios Mantzarlis, "The Fact Is, Fact-Checking Can Be Better", *Poynter*, 7 July, 2016. [www.poynter.org/2016/the-fact-is-fact-checking-can-be-better/420173](http://www.poynter.org/2016/the-fact-is-fact-checking-can-be-better/420173), accessed 20 July, 2016.
8. Will Moy (director, Full Fact) and Phoebe Arnold (senior communications officer, Full Fact), in discussion with the author, July 2016.
9. Bill Adair (founder, PolitiFact), in discussion with the author and Peter Pomerantsev (senior fellow, Legatum Institute), May 2016.
10. Jack Shafer, "The Limits of Fact-Checking", *Politico*, 24 December, 2015. [www.politico.com/magazine/story/2015/12/the-limits-of-the-fact-checker-213461](http://www.politico.com/magazine/story/2015/12/the-limits-of-the-fact-checker-213461), accessed 20 July, 2016.
11. Brendan Nyhan, Twitter post, 24 December, 2015, 5.32 p.m. [twitter.com/BrendanNyhan/status/680078525223669760](https://twitter.com/BrendanNyhan/status/680078525223669760).
12. Bill Adair (founder, PolitiFact), in discussion with the author and Peter Pomerantsev (senior fellow, Legatum Institute), May 2016.
13. Michael P. Lynch (professor of philosophy, University of Connecticut, and author of *The Internet of Us: Knowing More and Understanding Less in the Age of Big Data*) in discussion with the author and Peter Pomerantsev (senior fellow, Legatum Institute), May 2016.
14. Brendan Nyhan and Jason Reifler, "Misinformation and Fact-Checking: Research Findings from Social Science", *New America Foundation* (2012), 24. [www.dartmouth.edu/~nyhan/Misinformation\\_and\\_Fact-checking.pdf](http://www.dartmouth.edu/~nyhan/Misinformation_and_Fact-checking.pdf).
15. Alexios Mantzarlis, Twitter post, 30 June, 2016, 6.15 p.m. [twitter.com/Mantzarlis/status/748565585471082496](https://twitter.com/Mantzarlis/status/748565585471082496).
16. Anne Applebaum, "Fact-Checking in a Post-Fact World", *Washington Post*, 19 May, 2016. [www.washingtonpost.com/opinions/fact-checking-in-a-post-fact-world/2016/05/19/d37434e2-1d0f-11e6-8c7b-6931e66333e7\\_story.html](http://www.washingtonpost.com/opinions/fact-checking-in-a-post-fact-world/2016/05/19/d37434e2-1d0f-11e6-8c7b-6931e66333e7_story.html), accessed July 20 2016. See also Jonathan Freedland, "Post-Truth Politicians Such as Donald Trump and Boris Johnson Are No Joke", *The Guardian*, 13 May, 2016 ([www.theguardian.com/commentisfree/2016/may/13/boris-johnson-donald-trump-post-truth-politician](http://www.theguardian.com/commentisfree/2016/may/13/boris-johnson-donald-trump-post-truth-politician), accessed 20 July, 2016) and Alexios Mantzarlis, "No, We're Not in a Post-Fact Era", *Poynter*, 21 July, 2016 ([www.poynter.org/2016/no-were-not-in-a-post-fact-era/421582](http://www.poynter.org/2016/no-were-not-in-a-post-fact-era/421582), accessed 28 July, 2016).
17. Brendan Nyhan, Twitter post, 24 December, 2015, 5.22 p.m. [twitter.com/BrendanNyhan/status/680076024206372864](https://twitter.com/BrendanNyhan/status/680076024206372864).
18. These two organisations have been chosen as they both represent neutral, independent fact-checkers, are of similar age, and are both increasingly visible in the American and British spheres. The selection is in no way meant to undermine the variety of independent fact-checkers in the US, the UK, and farther afield. It has been made in order to reveal the key points of difference between the two models of fact-checking.
19. Bill Adair (founder, PolitiFact), in discussion with the author and Peter Pomerantsev (senior fellow, Legatum Institute), May 2016.
20. Linda Qiu (staff writer, PolitiFact), in discussion with the author and Peter Pomerantsev (senior fellow, Legatum Institute), May 2016.
21. Bill Adair (founder, PolitiFact), in discussion with the author and Peter Pomerantsev (senior fellow, Legatum Institute), May 2016.
22. Bill Adair and Angie Drobnic Holan, "The Principles of PolitiFact, Pundit Fact and the Truth-O-Meter", *PolitiFact*, 1 November, 2013. [www.politifact.com/truth-o-meter/article/2013/nov/01/principles-politifact-punditfact-and-truth-o-meter](http://www.politifact.com/truth-o-meter/article/2013/nov/01/principles-politifact-punditfact-and-truth-o-meter), accessed 20 July, 2016.
23. *Ibid.*

- 23a. *Ibid.*
24. *Ibid.*
25. Naeemul Hassan et al., "The Quest to Automate Fact-Checking", pages 1–5. [cj2015.brown.columbia.edu/papers/automate-fact-checking.pdf](http://cj2015.brown.columbia.edu/papers/automate-fact-checking.pdf).
26. Bill Adair, "New Share the Facts Widget Helps Facts—Rather Than Falsehoods—Go Viral", *Duke Reporters' Lab*, 12 May, 2016. [reporterslab.org/new-share-facts-widget-helps-facts-rather-falsehoods-go-viral](http://reporterslab.org/new-share-facts-widget-helps-facts-rather-falsehoods-go-viral), accessed 20 July, 2016.
27. Jill Lepore, "After the Fact", *New Yorker*, 21 March, 2016. [www.newyorker.com/magazine/2016/03/21/the-internet-of-us-and-the-end-of-facts](http://www.newyorker.com/magazine/2016/03/21/the-internet-of-us-and-the-end-of-facts), accessed 20 July, 2016.
28. See PolitiFact, "Ted Cruz's File" ([www.politifact.com/personalities/ted-cruz](http://www.politifact.com/personalities/ted-cruz), accessed 25 August, 2016) and PolitiFact, "Marco Rubio's File" ([www.politifact.com/personalities/marco-rubio](http://www.politifact.com/personalities/marco-rubio), accessed 25 August, 2016). Note that these findings extend beyond the 2016 primary season.
29. PolitiFact, "Donald Trump's File". [www.politifact.com/personalities/donald-trump](http://www.politifact.com/personalities/donald-trump), accessed 20 July, 2016.
30. PolitiFact, "Hillary Clinton's File". [www.politifact.com/personalities/hillary-clinton](http://www.politifact.com/personalities/hillary-clinton), accessed 20 July, 2016.
31. PolitiFact, "Bernie Sanders's File". [www.politifact.com/personalities/bernie-s](http://www.politifact.com/personalities/bernie-s), accessed 20 July, 2016.
32. See PolitiFact, "All Pants on Fire! Statements Involving Donald Trump" ([www.politifact.com/personalities/donald-trump/statements/byruling/pants-fire](http://www.politifact.com/personalities/donald-trump/statements/byruling/pants-fire), accessed 20 July, 2016) and compare with PolitiFact, "All Pants on Fire! Statements Involving Hillary Clinton" ([www.politifact.com/personalities/hillary-clinton/statements/byruling/pants-fire](http://www.politifact.com/personalities/hillary-clinton/statements/byruling/pants-fire), accessed 20 July, 2016), PolitiFact, "All Pants on Fire! Statements Involving Bernie Sanders" ([www.politifact.com/personalities/bernie-s](http://www.politifact.com/personalities/bernie-s), accessed 20 July, 2016), and PolitiFact, "All Pants on Fire! Statements Involving Martin O'Malley" ([www.politifact.com/personalities/martin-omalley](http://www.politifact.com/personalities/martin-omalley), accessed 20 July, 2016). Between the three major Democratic candidates, there were just two "pants on fire" statements up to 20 July, 2016, and both of these came from Clinton.
33. Louis Jacobson, "Donald Trump Says if You're from Syria and a Christian, You Can't Come to the U.S. as a Refugee", PolitiFact, 20 July, 2015. [www.politifact.com/truth-o-meter/statements/2015/jul/20/donald-trump/donald-trump-says-if-youre-syria-and-christianyou-](http://www.politifact.com/truth-o-meter/statements/2015/jul/20/donald-trump/donald-trump-says-if-youre-syria-and-christianyou-), accessed 20 July, 2016.
34. Will Cabaniss, "Donald Trump Says 'He Didn't Say' the Things about Women That Megyn Kelly Asked Him about in Debate", PolitiFact, 10 August, 2015. [www.politifact.com/truth-o-meter/statements/2015/aug/10/donald-trump/donald-trump-says-women-viciously-attacked-him-fir](http://www.politifact.com/truth-o-meter/statements/2015/aug/10/donald-trump/donald-trump-says-women-viciously-attacked-him-fir), accessed 20 July, 2016.
35. Louis Jacobson, "Donald Trump Says U.S. Is 'Most Highly Taxed Nation in the World'", PolitiFact, 28 August, 2015. [www.politifact.com/truth-o-meter/statements/2015/aug/28/donald-trump/](http://www.politifact.com/truth-o-meter/statements/2015/aug/28/donald-trump/) donald-trump-says-us-most-highly-taxed-nation-worl, accessed 20 July, 2016.
36. Louis Jacobson, "Donald Trump Says the Unemployment Rate May Be 42 Percent", PolitiFact, 30 September, 2015. [www.politifact.com/truth-o-meter/statements/2015/sep/30/donald-trump/donald-trump-says-unemployment-rate-may-be-42-perc](http://www.politifact.com/truth-o-meter/statements/2015/sep/30/donald-trump/donald-trump-says-unemployment-rate-may-be-42-perc), accessed 20 July, 2016.
37. Lauren Carroll, "Fact-Checking Trump's Claim That Thousands in New Jersey Cheered When World Trade Center Tumbled", PolitiFact, 22 November, 2015. [www.politifact.com/truth-o-meter/statements/2015/nov/22/donald-trump/fact-checking-trumps-claim-thousands-new-jersey-ch](http://www.politifact.com/truth-o-meter/statements/2015/nov/22/donald-trump/fact-checking-trumps-claim-thousands-new-jersey-ch), accessed 22 July, 2016.
38. Angie Drobnic Holan and Linda Qiu, "2015 Lie of the Year: the Campaign Misstatements of Donald Trump", PolitiFact, 21 December, 2015. [www.politifact.com/truth-o-meter/article/2015/dec/21/2015-lie-year-donald-trump-campaign-misstatements](http://www.politifact.com/truth-o-meter/article/2015/dec/21/2015-lie-year-donald-trump-campaign-misstatements), accessed 22 July, 2016.
39. Louis Jacobson and Linda Qiu, "Donald Trump's Pants on Fire claim linking Ted Cruz's father and JFK assassination", PolitiFact, 3 May, 2016. <http://www.politifact.com/truth-o-meter/statements/2016/may/03/donald-trump/donald-trumps-ridiculous-claim-linking-ted-cruzs-f/>, accessed 22 July, 2016.
40. Louis Jacobson, "Donald Trump wrong that Hillary Clinton wants to release all violent criminals from prison", PolitiFact, May 26, 2016. <http://www.politifact.com/truth-o-meter/statements/2016/may/26/donald-trump/donald-trump-wrong-hillary-clinton-wants-release-a/>, accessed 22 July, 2016.
41. Linda Qiu (staff writer, PolitiFact), in discussion with the author and Peter Pomerantsev (senior fellow, Legatum Institute), May 2016.
42. *Ibid.*
43. Alexios Mantzarlis (analyst, Poynter Institute), in discussion with the author and Peter Pomerantsev (senior fellow, Legatum Institute), May 2016.
44. Michael P. Lynch (professor of philosophy, University of Connecticut, and author of *The Internet of Us: Knowing More and Understanding Less in the Age of Big Data*) in discussion with the author and Peter Pomerantsev (senior fellow, Legatum Institute), May 2016.
45. Marc Fisher and Will Hobson, "Donald Trump 'Pretends to Be His Own Spokesman to Boast about Himself'", *The Independent*, 13 May, 2016. [www.independent.co.uk/news/world/americas/us-elections/donald-trump-pretends-to-be-his-own-spokesman-to-boast-about-himself-a7027991.html](http://www.independent.co.uk/news/world/americas/us-elections/donald-trump-pretends-to-be-his-own-spokesman-to-boast-about-himself-a7027991.html), accessed 25 July, 2016.
46. *Ibid.*
47. Linda Qiu (staff writer, PolitiFact), in discussion with the author and Peter Pomerantsev (senior fellow, Legatum Institute), May 2016.
48. Lucas Graves and Tom Glaisyer, "The Fact-Checking Universe in Spring 2012", *New America Foundation* (2012), 22. [www.academia.edu/1483806/The\\_Fact-Checking\\_Universe\\_in\\_Spring\\_2012\\_An\\_Overview](http://www.academia.edu/1483806/The_Fact-Checking_Universe_in_Spring_2012_An_Overview).

49. Brendan Nyhan and Jason Reifler, "Estimating Fact-Checking's Effects", *American Press Institute* (2015), 17. [www.americanpressinstitute.org/wp-content/uploads/2015/04/Estimating-Fact-Checkings-Effect.pdf](http://www.americanpressinstitute.org/wp-content/uploads/2015/04/Estimating-Fact-Checkings-Effect.pdf).
50. *Ibid.*
51. Linda Qiu (staff writer, PolitiFact), in discussion with the author and Peter Pomerantsev (senior fellow, Legatum Institute), May 2016. The sub-reddit was on Reddit's IAMA page.
52. Chenhao Tan, Vlad Niculae, Cristian Danescu-Niculescu-Mizil, and Lillian Lee, "Winning Arguments: Interaction Dynamics and Persuasion Strategies in Good-Faith Online Discussions" (2016). [chenhaot.com/pubs/winning-arguments.pdf](http://chenhaot.com/pubs/winning-arguments.pdf).
53. Full Fact, "What Is Full Fact?". [fullfact.org/about](http://fullfact.org/about), accessed 25 July, 2016.
54. Will Moy (director, Full Fact) and Phoebe Arnold (senior communications officer, Full Fact), in discussion with the author, July 2016.
55. *Ibid.*
56. *Ibid.*
57. Full Fact, "What Is Full Fact?". [fullfact.org/about](http://fullfact.org/about), accessed 25 July, 2016.
58. Letter from Sir Andrew Dilnot CBE, UK Statistics Authority, to Will Moy, Full Fact, "EU Migration and UK Total Net Migration Statistics", 10 December, 2015. [www.statisticsauthority.gov.uk/wp-content/uploads/2015/12/images-letterfromsirandrewdilnottowillmoy10121\\_tcm97-45082.pdf](http://www.statisticsauthority.gov.uk/wp-content/uploads/2015/12/images-letterfromsirandrewdilnottowillmoy10121_tcm97-45082.pdf).
59. Full Fact, "Department of Health to Speed Up Response to Media and Full Fact". [fullfact.org/blog/2015/sep/department-health-speed-responses-media-and-full-fact](http://fullfact.org/blog/2015/sep/department-health-speed-responses-media-and-full-fact), last modified 9 September, 2015.
60. Full Fact, "What Is Full Fact?". [fullfact.org/about](http://fullfact.org/about), accessed 25 July, 2016.
61. *Ibid.*
62. Will Moy (director, Full Fact) and Phoebe Arnold (senior communications officer, Full Fact), in discussion with the author, July 2016.
63. Ipsos Mori, "Immigration One of the Biggest Issues for Wavering EU Referendum Voters", 10 May, 2016. [www.ipsos-mori.com/researchpublications/researcharchive/3732/immigration-one-of-the-biggest-issues-for-wavering-eu-referendum-voters.aspx](http://www.ipsos-mori.com/researchpublications/researcharchive/3732/immigration-one-of-the-biggest-issues-for-wavering-eu-referendum-voters.aspx), accessed 12 August, 2016.
64. Full Fact, "The UK's EU membership fee", 27 May, 2016. <https://fullfact.org/europe/our-eu-membership-fee-55-million/>, accessed 22 July, 2016.
65. Will Moy (director, Full Fact) and Phoebe Arnold (senior communications officer, Full Fact), in discussion with the author, July 2016.
66. Jim Pickard, "'Spurious Makes Us Curious': the UK's Professional Fact-Checkers", *Financial Times*, 2 June, 2016. [next.ft.com/content/c35299c8-2719-11e6-8b18-91555f2f4fde](http://next.ft.com/content/c35299c8-2719-11e6-8b18-91555f2f4fde), accessed 25 July, 2016.
67. Video subsection of Full Fact's Facebook page, accessed 25 August, 2016. [www.facebook.com/FullFact.org/videos/](http://www.facebook.com/FullFact.org/videos/), accessed 21/7/16.
68. Full Fact, "The Sun Corrects Story on the EU and Human Rights", 22 June, 2016. [fullfact.org/crime/sun-corrects-story-eu-and-human-rights](http://fullfact.org/crime/sun-corrects-story-eu-and-human-rights), accessed 25 July, 2016.
69. Henry Mance, "Britain Has Had Enough of Experts, Says Gove", *Financial Times*, 3 June, 2016. [www.ft.com/cms/s/0/3be49734-29cb-11e6-83e4-abc22d5d108c.html#axzz4IfK4WS9k](http://www.ft.com/cms/s/0/3be49734-29cb-11e6-83e4-abc22d5d108c.html#axzz4IfK4WS9k), accessed 21 July, 2016.
70. Will Moy, Joseph O'Leary, Amy Sippit and Conor James McKinney, "Fact-Checking the EU Referendum" (lecture, London School of Economics, London, 12 May, 2016). See Full Fact, "Full Fact at News Impact Summit, London", Full Fact, 12 May, 2016. <https://fullfact.org/blog/2016/may/full-fact-news-impact-summit-london/>, accessed 22 July, 2016.
71. Full Fact, "UK Law: What Proportion Is Influenced by the EU?", 22 June, 2016. [fullfact.org/europe/uk-law-what-proportion-influenced-eu](http://fullfact.org/europe/uk-law-what-proportion-influenced-eu), accessed 21 July, 2016.
72. Vaughne Miller, "How much legislation comes from Europe?", Commons Briefing papers RP10-62, House of Commons Library, 13 October 2010. <http://researchbriefings.parliament.uk/ResearchBriefing/Summary/RP10-62#fullreport>, accessed 21 July, 2016. See also an update by the author on the House of Commons Library blog: Vaughne Miller, "How much legislation comes from Europe?", *Second Reading*, 2 June, 2014. <https://secondreading.uk/vaughne-miller/how-much-legislation-comes-from-europe/>
73. Full Fact, "UK law: What proportion is influenced by the EU?", 22 June, 2016. <https://fullfact.org/europe/uk-law-what-proportion-influenced-eu/>, accessed 21 July, 2016.
74. Michael Dougan, "Fact-Check: Are 60% of UK laws really imposed by the EU?", *The Conversation*, 27 April, 2016. <https://theconversation.com/fact-check-are-60-of-uk-laws-really-imposed-by-the-eu-58516>, accessed 21 July, 2016.
75. Full Fact, "UK law: What proportion is influenced by the EU?", 22 June, 2016.
76. Alexios Mantzarlis, "Lessons from fact-checking the Brexit debate", *Poynter*, June 23, 2016. <http://www.poynter.org/2016/lessons-from-fact-checking-the-brexit-debate/418107/>, accessed 22 July, 2016.
77. Filip Stojanovski, "Can Fact-Checking Save Democracy—and Journalism as We Know It?", *Global Voices*, 12 July, 2016. [globalvoices.org/2016/07/12/can-fact-checking-save-democracy-and-journalism-as-we-know-it](http://globalvoices.org/2016/07/12/can-fact-checking-save-democracy-and-journalism-as-we-know-it/), accessed 28 July, 2016.
78. Hank Tucker, "Shattered Apps, Aborted Podcasts and TV Hiccups: Fact-Checkers Share Stories of Failure", *Poynter*, 9 June, 2016. [www.poynter.org/2016/shattered-apps-aborted-podcasts-](http://www.poynter.org/2016/shattered-apps-aborted-podcasts-)

- and-tv-hiccups-fact-checkers-share-stories-of-failure/416021, accessed 21 July, 2016.
79. Alexios Mantzarlis, "Can the Worldwide Boom in Digital Fact-Checking Make the Leap to TV?", *Poynter*, 31 May, 2016. [www.poynter.org/2016/can-the-worldwide-boom-in-digital-fact-checking-make-the-leap-to-tv/411668](http://www.poynter.org/2016/can-the-worldwide-boom-in-digital-fact-checking-make-the-leap-to-tv/411668), accessed 21 July, 2016.
  80. Reporters Without Borders, "Conservative government reasserts control over state broadcaster", 8 August, 2012. <https://rsf.org/en/news/conservative-government-reasserts-control-over-state-broadcaster>, accessed 5 August, 2016.
  81. Alexios Mantzarlis, "Fact-Checking on TV: El Objetivo's Pruebas de Verificación", *Poynter*, 2 December, 2015. [www.poynter.org/2015/fact-checking-on-tv-el-objetivo-pruebas-de-verificacion-2/387593](http://www.poynter.org/2015/fact-checking-on-tv-el-objetivo-pruebas-de-verificacion-2/387593), accessed 21 July, 2016.
  82. *Ibid.*
  83. Rai.tv, "RefugeeCheck", 25 November, 2015. [www.rai.tv/dl/RaiTV/programmi/media/ContentItem-020f1cab-48e6-48bb-bbdd-13b8bd432a97.html#p=](http://www.rai.tv/dl/RaiTV/programmi/media/ContentItem-020f1cab-48e6-48bb-bbdd-13b8bd432a97.html#p=), accessed 21 July, 2016.
  84. *Ibid.*
  85. Virus Rai's Facebook page, accessed 5 August, 2016. [www.facebook.com/Virusilcontagiodelleidee/?fref=nf](http://www.facebook.com/Virusilcontagiodelleidee/?fref=nf).
  86. Giulio Pasqui, "Nicola Porro: 'Virus cancellato dai palinsesti di Rai 2'", *TVblog.it*, 18 May, 2016. [www.tvblog.it/post/1301188/nicola-porro-virus-cancellato-dai-palinsesti-rai-2](http://www.tvblog.it/post/1301188/nicola-porro-virus-cancellato-dai-palinsesti-rai-2), accessed 5 August, 2016.
  87. Alessandra Caparello, "Rai da regime: bufera sui vaccini, il programma Virus viene cancellato", *Wall Street Italia*, 19 May, 2016. [www.wallstreetitalia.com/rai-da-regime-bufera-sui-vaccini-il-programma-virus-viene-cancellato](http://www.wallstreetitalia.com/rai-da-regime-bufera-sui-vaccini-il-programma-virus-viene-cancellato), accessed 5 August, 2016.
  88. Alexios Mantzarlis, former fact-checker with Pagella Politica, email correspondence with the author, July 2016.
  89. ABC News, "ABC Fact Check Unit to Close Following Budget Cuts", May 18, 2016. [www.abc.net.au/news/2016-05-18/abc-fact-check-unit-to-close-14-jobs-to-go/7425638](http://www.abc.net.au/news/2016-05-18/abc-fact-check-unit-to-close-14-jobs-to-go/7425638), accessed 7 August, 2016.
  90. Alexios Mantzarlis, "Fact-Checking on TV: Australia's ABC Fact Check", January 25, 2016. [www.poynter.org/2016/fact-checking-on-tv-australias-abc-fact-check/391234](http://www.poynter.org/2016/fact-checking-on-tv-australias-abc-fact-check/391234), accessed 7 August, 2016.
  91. *Ibid.*
  92. *Ibid.*
  93. See Laura Zommer and Olivia Sohr, "Moving Fact-Checking from the Web to TV Is Important but Tough", *Poynter*, 25 March, 2016 ([www.poynter.org/2016/moving-fact-checking-from-the-web-to-tv-is-important-but-tough/403520](http://www.poynter.org/2016/moving-fact-checking-from-the-web-to-tv-is-important-but-tough/403520), accessed August 8, 2016) and Alexios Mantzarlis, "Fact-Checking on TV: El Objetivo's Pruebas de Verificación", *Poynter*, 2 December, 2015 ([www.poynter.org/2015/fact-checking-on-tv-el-objetivo-pruebas-de-verificacion-2/387593](http://www.poynter.org/2015/fact-checking-on-tv-el-objetivo-pruebas-de-verificacion-2/387593), accessed 21 July, 2016).
  94. Alexios Mantzarlis, "Why CNN's Fact-Checking Chyron Is a Big Deal—and Why It Isn't", *Poynter*, 3 June, 2016. [www.poynter.org/2016/why-cnns-fact-checking-chyron-is-a-big-deal-and-why-it-isnt/414965](http://www.poynter.org/2016/why-cnns-fact-checking-chyron-is-a-big-deal-and-why-it-isnt/414965), accessed 20 July, 2016.
  95. Chengcheng Shao et al., "Hoaxy: A Platform for Tracking Online Misinformation", 6 March, 2016. [arxiv.org/pdf/1603.01511v1.pdf](http://arxiv.org/pdf/1603.01511v1.pdf).
  96. Mevan Babakar and Will Moy, "The State of Automated Factchecking: How to Make Factchecking Dramatically More Effective with Technology We Have Now", *Full Fact* (2016), 36. [fullfact.org/media/uploads/full\\_fact-the\\_state\\_of\\_automated\\_factchecking\\_aug\\_2016.pdf](http://fullfact.org/media/uploads/full_fact-the_state_of_automated_factchecking_aug_2016.pdf).
  97. *Ibid.*
  98. *Ibid.*
  99. *Ibid.*
  100. *Ibid.*
  101. ClaimBuster, "Automated Live Fact-Checking" ([idir-server2.uta.edu/claimbuster](http://idir-server2.uta.edu/claimbuster), accessed 25 August, 2016). See also Peter Fray, "Is That a Fact? Checking Politicians' Statements Just Got a Whole Lot Easier", *The Guardian*, 19 April, 2016 ([www.theguardian.com/commentisfree/2016/apr/19/is-that-a-fact-checking-politicians-statements-just-got-a-whole-lot-easier?CMP=share\\_btn\\_link](http://www.theguardian.com/commentisfree/2016/apr/19/is-that-a-fact-checking-politicians-statements-just-got-a-whole-lot-easier?CMP=share_btn_link), accessed 25 August, 2016).
  102. Mevan Babakar and Will Moy, "The State of Automated Factchecking: How to Make Factchecking Dramatically More Effective with Technology We Have Now", *Full Fact* (2016), 36. [fullfact.org/media/uploads/full\\_fact-the\\_state\\_of\\_automated\\_factchecking\\_aug\\_2016.pdf](http://fullfact.org/media/uploads/full_fact-the_state_of_automated_factchecking_aug_2016.pdf).
  103. *Ibid.*
  104. *Ibid.*
  105. *Ibid.*
  106. "Announcing Truth Teller Beta, a Better Way to Watch Political Speech", *Washington Post*, 25 September, 2013. [www.washingtonpost.com/news/ask-the-post/wp/2013/09/25/announcing-truth-teller-beta-a-better-way-to-watch-political-speech](http://www.washingtonpost.com/news/ask-the-post/wp/2013/09/25/announcing-truth-teller-beta-a-better-way-to-watch-political-speech), accessed 23 August, 2016.
  107. Mevan Babakar and Will Moy, "The State of Automated Factchecking: How to Make Factchecking Dramatically More Effective with Technology We Have Now", *Full Fact* (2016), 36. [fullfact.org/media/uploads/full\\_fact-the\\_state\\_of\\_automated\\_factchecking\\_aug\\_2016.pdf](http://fullfact.org/media/uploads/full_fact-the_state_of_automated_factchecking_aug_2016.pdf).
  108. Bspark915, "RumorLens", YouTube video, 03:28, filmed 25 October, 2013. [www.youtube.com/watch?v=1Ag4YPMoRrw](http://www.youtube.com/watch?v=1Ag4YPMoRrw).
  109. Biography of Professor Paul Resnick. [presnick.people.si.umich.edu](http://presnick.people.si.umich.edu), accessed 21 July, 2016.
  110. Chengcheng Shao et al., "Hoaxy: A Platform for Tracking Online Misinformation", 6 March, 2016. [arxiv.org/pdf/1603.01511v1.pdf](http://arxiv.org/pdf/1603.01511v1.pdf).

111. *Ibid.*
112. Alessandro Bessi et al., "Trend of Narratives in the Age of Misinformation", 14 August, 2015. [eprints.imtlucca.it/2796/1/trend.pdf](http://eprints.imtlucca.it/2796/1/trend.pdf).
113. Mevan Babakar and Will Moy, "The State of Automated Factchecking: How to Make Factchecking Dramatically More Effective with Technology We Have Now", Full Fact (2016), 28. [fullfact.org/media/uploads/full\\_fact-the\\_state\\_of\\_automated\\_factchecking\\_aug\\_2016.pdf](http://fullfact.org/media/uploads/full_fact-the_state_of_automated_factchecking_aug_2016.pdf).
114. Craig Silverman, "Lies, Damn Lies and Viral Content: How News Websites Spread (and Debunk) Online Rumors, Unverified Claims and Misinformation", Tow Center for Digital Journalism (2015), 168. [towcenter.org/wp-content/uploads/2015/02/LiesDamnLies\\_Silverman\\_TowCenter.pdf](http://towcenter.org/wp-content/uploads/2015/02/LiesDamnLies_Silverman_TowCenter.pdf).
115. *Ibid.*
116. *Ibid.*
117. Alexios Mantzarlis, "Did Clinton or Trump Twist the Facts? This Messaging Bot Will Tell You", *Poynter*, May 10, 2016. [www.poynter.org/2016/did-clinton-or-trump-twist-the-facts-this-messaging-bot-will-tell-you/409457](http://www.poynter.org/2016/did-clinton-or-trump-twist-the-facts-this-messaging-bot-will-tell-you/409457), accessed 5 August, 2016.
118. *Ibid.*
119. *Ibid.*
120. *Ibid.*
121. Hank Tucker, "Shuttered Apps, Aborted Podcasts and TV Hiccups: Fact-Checkers Share Stories of Failure", *Poynter*, 9 June, 2016. [www.poynter.org/2016/shuttered-apps-aborted-podcasts-and-tv-hiccups-fact-checkers-share-stories-of-failure/416021](http://www.poynter.org/2016/shuttered-apps-aborted-podcasts-and-tv-hiccups-fact-checkers-share-stories-of-failure/416021), accessed 21 July, 2016.
122. Samuel Woolley et al., "How to Think About Bots", *Motherboard*, 23 February, 2016. [motherboard.vice.com/read/how-to-think-about-bots](http://motherboard.vice.com/read/how-to-think-about-bots), accessed 20 July, 2016.
123. *Ibid.*
124. *Ibid.*
125. Rob Price, "Microsoft is deleting its AI chatbot's incredible racist tweets", *Business Insider UK*, 24 May, 2016. <http://uk.businessinsider.com/microsoft-deletes-racist-genocidal-tweets-from-ai-chatbot-tay-2016-3>, accessed 22 August, 2016.
126. Erich Owens and Udi Weinsberg, "News Feed FYI: Showing Fewer Hoaxes", Facebook, 20 January, 2015. [newsroom.fb.com/news/2015/01/news-feed-fyi-showing-fewer-hoaxes](https://newsroom.fb.com/news/2015/01/news-feed-fyi-showing-fewer-hoaxes), accessed 25 July, 2016.
127. *Ibid.*
128. Tom Trewninard, "How to Stop Fake News on Facebook", *First Draft News*, 16 June, 2015. [firstdraftnews.com/how-to-stop-fake-news-on-facebook-without-the-flags](http://firstdraftnews.com/how-to-stop-fake-news-on-facebook-without-the-flags), accessed 21 July, 2016.
129. Alan Greenblatt, "What Does the Future of Automated Fact-Checking Look Like?", *Poynter*, 4 April, 2016. [www.poynter.org/2016/whats-does-the-future-of-automated-fact-checking-look-like/404937](http://www.poynter.org/2016/whats-does-the-future-of-automated-fact-checking-look-like/404937), accessed 21 July, 2016.
130. Alexios Mantzarlis, "Can Fact-Checkers Break Into Facebook's Echo Chambers?", *Poynter*, 3 May, 2016. [www.poynter.org/2016/can-fact-checkers-break-into-facebooks-echo-chambers/408610](http://www.poynter.org/2016/can-fact-checkers-break-into-facebooks-echo-chambers/408610), accessed 5 August, 2016.
131. Alex Kantrowitz, "Facebook Wanted a Fight Against Fake News. It Got One", *Buzzfeed*, 12 April, 2016. [www.buzzfeed.com/alexkantrowitz/in-its-fight-against-fake-news-facebook-found-a-resilient-fo?utm\\_term=.tvVjmp4EP#.ijlA5B936](http://www.buzzfeed.com/alexkantrowitz/in-its-fight-against-fake-news-facebook-found-a-resilient-fo?utm_term=.tvVjmp4EP#.ijlA5B936), accessed 8 August, 2016.
132. Climate Feedback, "The Telegraph Issues a Public Correction after Scientists Point to Inaccuracies". [climatefeedback.org/the-telegraph-issues-a-public-correction-after-scientists-point-to-inaccuracies](http://climatefeedback.org/the-telegraph-issues-a-public-correction-after-scientists-point-to-inaccuracies), accessed 25 August, 2016. See [climatefeedback.org](http://climatefeedback.org).
133. *Ibid.*
134. Tamar Wilner, "Annotation Might Be the Future of Fact-Checking", *Poynter*, 25 May, 2016. [www.poynter.org/2016/annotation-might-be-the-future-of-fact-checking/413659](http://www.poynter.org/2016/annotation-might-be-the-future-of-fact-checking/413659), accessed 8 August, 2016.
135. Hank Tucker, "Shuttered Apps, Aborted Podcasts and TV Hiccups: Fact-Checkers Share Stories of Failure", *Poynter*, 9 June, 2016. [www.poynter.org/2016/shuttered-apps-aborted-podcasts-and-tv-hiccups-fact-checkers-share-stories-of-failure/416021](http://www.poynter.org/2016/shuttered-apps-aborted-podcasts-and-tv-hiccups-fact-checkers-share-stories-of-failure/416021), accessed 21 July, 2016.
136. Genius, "Web Annotator", [genius.com/web-annotator](http://genius.com/web-annotator). It is worth noting that Genius and Hypothes.is seem to exist in competition.
137. Lauren Carroll et al., "Barack Obama's 2015 State of the Union Address: Annotated", *PolitiFact*, 20 January, 2015. [www.politifact.com/truth-o-meter/article/2015/jan/20/barack-obamas-2015-state-union-address-annotated/#annotations:4765323](http://www.politifact.com/truth-o-meter/article/2015/jan/20/barack-obamas-2015-state-union-address-annotated/#annotations:4765323), accessed 8 August, 2016.
138. Jason Abbruzzese, "News Genius Controversy Around Harassing Female Writers Now Includes a Letter from Congress", *Mashable UK*, 29 March, 2016. [mashable.com/2016/03/29/genius-clark-harassing-annotations-gawker-leah-finnegan/#aamuRwqpRiQj](http://mashable.com/2016/03/29/genius-clark-harassing-annotations-gawker-leah-finnegan/#aamuRwqpRiQj), accessed 9 August, 2016.
139. Ella Dawson, "I Am Not 'Suffering' from Herpes", 14 March, 2016. Genius overlay accessible at [genius.com/8824794](http://genius.com/8824794), accessed 9 August, 2016.
140. Jason Abbruzzese, "News Genius Controversy Around Harassing Female Writers Now Includes a Letter from Congress", *Mashable UK*, 29 March, 2016. [mashable.com/2016/03/29/genius-clark-harassing-annotations-gawker-leah-finnegan/#aamuRwqpRiQj](http://mashable.com/2016/03/29/genius-clark-harassing-annotations-gawker-leah-finnegan/#aamuRwqpRiQj), accessed 9 August, 2016.
141. Tamar Wilner, "Annotation Might Be the Future of Fact-Checking", *Poynter*, 25 May, 2016. [www.poynter.org/2016/annotation-might-be-the-future-of-fact-checking/413659](http://www.poynter.org/2016/annotation-might-be-the-future-of-fact-checking/413659), accessed 8 August, 2016.
142. *Ibid.*

143. *Ibid.*
144. Dr Walter Quattrociocchi (computer scientist, Lucca), in discussion with the author and Peter Pomerantsev (senior fellow, Legatum Institute), May 2016.
145. Michela Del Vicario et al., "The Spreading of Misinformation Online", December 4, 2015. [eprints.imtlucca.it/3020/1/PNAS-2016-Del%20Vicario-554-9%20%281%29.pdf](https://eprints.imtlucca.it/3020/1/PNAS-2016-Del%20Vicario-554-9%20%281%29.pdf).
146. *Ibid.*
147. Charlie Winter, "The Virtual 'Caliphate': Understanding Islamic State's Propaganda Strategy", Quilliam Foundation, July 2015, p. 8. <https://www.quilliamfoundation.org/wp/wp-content/uploads/publications/free/the-virtual-caliphate-understanding-islamic-states-propaganda-strategy.pdf>, accessed 14 September, 2016.
148. Charlie Winter, "Islamic State Propaganda: Our Response to the Competition" in Katrina Elledge, David Patrikarakos, Peter Pomerantsev and Charlie Winter, "Cyber Propaganda: From how to start a revolution to how to beat ISIS", Legatum Institute, November 2015, p.28. <https://lif.blob.core.windows.net/lif/docs/default-source/publications/cyber-propaganda-2015-final-pdf.pdf?sfvrsn=2>, accessed 14 September, 2016.
149. *Ibid.*
150. Brian Gaines et al., "Same Facts, Different Interpretations: Partisan Motivation and Opinion on Iraq", *Journal of Politics*, 69, no. 4 (2007), 957–74. [onlinelibrary.wiley.com/doi/10.1111/j.1468-2508.2007.00601.x/abstract](https://onlinelibrary.wiley.com/doi/10.1111/j.1468-2508.2007.00601.x/abstract).
151. *Ibid.*
152. Joanne M. Miller, Kyle L. Saunders, and Christina E. Farhart, "Conspiracy Endorsement as Motivated Reasoning: The Moderating Roles of Political Knowledge and Trust", *American Journal of Political Science* (2015), 1–21. [onlinelibrary.wiley.com/doi/10.1111/ajps.12234/abstract?systemMessage=Wiley+Online+Library+will+be+unavailable+on+Saturday+3rd+September+2016+at+08.30+BST%2F+03%3A30+EDT%2F+15%3A30+SGT+for+5+hours+and+Sunday+4th+September+at+10%3A00+BST%2F+05%3A00+EST%2F+17%3A00+SGT+for+1+hour++for+essential+maintenance.+Apologies+for+the+inconvenience](https://onlinelibrary.wiley.com/doi/10.1111/ajps.12234/abstract?systemMessage=Wiley+Online+Library+will+be+unavailable+on+Saturday+3rd+September+2016+at+08.30+BST%2F+03%3A30+EDT%2F+15%3A30+SGT+for+5+hours+and+Sunday+4th+September+at+10%3A00+BST%2F+05%3A00+EST%2F+17%3A00+SGT+for+1+hour++for+essential+maintenance.+Apologies+for+the+inconvenience).
153. D. J. Flynn and Yanna Krupnikov, "Misinformation and the Justification of Socially Undesirable Preferences". [djflynn.org/wp-content/uploads/2016/03/Misinformation\\_RR\\_FINAL.pdf](https://djflynn.org/wp-content/uploads/2016/03/Misinformation_RR_FINAL.pdf).
154. Alessandro Bessi et al., "Trend of Narratives in the Age of Misinformation", 14 August, 2015. [eprints.imtlucca.it/2796/1/trend.pdf](https://eprints.imtlucca.it/2796/1/trend.pdf).
155. Cass R. Sunstein, "The Law of Group Polarization", *Chicago Working Paper in Law and Economics* (1999). [www.law.uchicago.edu/files/files/91.CRS\\_Polarization.pdf](https://www.law.uchicago.edu/files/files/91.CRS_Polarization.pdf).
156. Brendan Nyhan and Jason Reifler, "Estimating Fact-Checking's Effects", *American Press Institute* (2015), 17. [www.americanpressinstitute.org/wp-content/uploads/2015/04/Estimating-Fact-Checkings-Effect.pdf](https://www.americanpressinstitute.org/wp-content/uploads/2015/04/Estimating-Fact-Checkings-Effect.pdf).
157. Alexios Mantzarlis, "Lessons from Fact-Checking the Brexit Debate", *Poynter*, 23 June, 2016. [www.poynter.org/2016/lessons-from-fact-checking-the-brexite-debate/418107](http://www.poynter.org/2016/lessons-from-fact-checking-the-brexite-debate/418107), accessed 5 August, 2016.
158. Joanne M. Miller, Kyle L. Saunders, and Christina E. Farhart, "Conspiracy Endorsement as Motivated Reasoning: The Moderating Roles of Political Knowledge and Trust", *American Journal of Political Science* (2015), 1–21.
159. Brian Gaines et al., "Same Facts, Different Interpretations: Partisan Motivation and Opinion on Iraq", *Journal of Politics*, 69, no. 4 (2007), 957–74. [onlinelibrary.wiley.com/doi/10.1111/j.1468-2508.2007.00601.x/abstract](https://onlinelibrary.wiley.com/doi/10.1111/j.1468-2508.2007.00601.x/abstract).
160. *Ibid.*
161. *Ibid.*
162. *Ibid.*
163. *Ibid.*
164. *Ibid.*
165. Joanne M. Miller, Kyle L. Saunders, and Christina E. Farhart, "Conspiracy Endorsement as Motivated Reasoning: The Moderating Roles of Political Knowledge and Trust", *American Journal of Political Science* (2015), 1–21.
166. Will Moy (director, Full Fact) and Phoebe Arnold (senior communications officer, Full Fact), in discussion with the author, July 2016.
167. *Ibid.*
168. Alexios Mantzarlis, "What Can Fact-Checkers Learn from Storyful's Business Model?", *Poynter*, 29 October, 2015. [www.poynter.org/2015/what-can-fact-checkers-learn-from-storyfuls-business-model/381899](http://www.poynter.org/2015/what-can-fact-checkers-learn-from-storyfuls-business-model/381899), accessed 21 July, 2016.
169. Will Moy (director, Full Fact) and Phoebe Arnold (senior communications officer, Full Fact), in discussion with the author, July 2016.
170. Amy Sippitt and Alessia Tranchese, "How Did the Media and Politicians in the UK Discuss Poverty in 2015?", Joseph Rowntree Foundation, December 2015. [www.jrf.org.uk/report/talking-about-poverty-2015](http://www.jrf.org.uk/report/talking-about-poverty-2015).
171. Bill Adair (founder, PolitiFact), in discussion with the author and Peter Pomerantsev (senior fellow, Legatum Institute), May 2016.
172. Michael P. Lynch (professor of philosophy, University of Connecticut, and author of *The Internet of Us: Knowing More and Understanding Less in the Age of Big Data*) in discussion with the author and Peter Pomerantsev (senior fellow, Legatum Institute), May 2016.
173. Linda Qiu (staff writer, PolitiFact), in discussion with the author and Peter Pomerantsev (senior fellow, Legatum Institute), May 2016.
174. Bill Adair (founder, PolitiFact), in discussion with the author and Peter Pomerantsev (senior fellow, Legatum Institute), May 2016.

175. Jane Elizabeth and Alexios Mantzarlis, "The Fact Is, Fact-Checking Can Be Better", *Poynter*, 7 July, 2016. [www.poynter.org/2016/the-fact-is-fact-checking-can-be-better/420173](http://www.poynter.org/2016/the-fact-is-fact-checking-can-be-better/420173), accessed 20 July, 2016.
176. Alexios Mantzarlis (analyst, Poynter) in discussion with the author, July 2016. See also Eugenia Mitchelstein, "Readers Trust Fact-Checkers More Than Traditional Media but Not Blindly, New Study Finds", *Poynter*, 16 May, 2016. [www.poynter.org/2016/readers-trust-fact-checkers-more-than-traditional-media-but-not-blindly-new-study-finds/411960](http://www.poynter.org/2016/readers-trust-fact-checkers-more-than-traditional-media-but-not-blindly-new-study-finds/411960), accessed 5 August, 2016.
177. Jane Elizabeth and Alexios Mantzarlis, "The Fact Is, Fact-Checking Can Be Better", *Poynter*, July 7, 2016. [www.poynter.org/2016/the-fact-is-fact-checking-can-be-better/420173](http://www.poynter.org/2016/the-fact-is-fact-checking-can-be-better/420173), accessed 20 July, 2016.
178. Ross Frenett and Moli Dow, "One to One Online Interventions: A Pilot CVE Methodology", Institute for Strategic Dialogue, September 2015. [http://www.strategicdialogue.org/wp-content/uploads/2016/04/One2One\\_Web\\_v9.pdf](http://www.strategicdialogue.org/wp-content/uploads/2016/04/One2One_Web_v9.pdf), accessed 14 September, 2016.
179. Charlie Winter, "Islamic State Propaganda: Our Response to the Competition" in Katrina Elledge, David Patrikarakos, Peter Pomerantsev and Charlie Winter, "Cyber Propaganda: From how to start a revolution to how to beat ISIS", Legatum Institute, November 2015, p.28. <https://lif.blob.core.windows.net/lif/docs/default-source/publications/cyber-propaganda-2015-final-pdf.pdf?sfvrsn=2>, accessed 14 September, 2016.
180. This initiative is part of the Institute for Strategic Dialogue's guide to countering far-right extremism which combines on- and off-line approaches. See Vidhya Ramalingham, "On the Front Line: A guide to countering far-right extremism", Institute for Strategic Dialogue, 2014. [http://www.strategicdialogue.org/On\\_The\\_Front\\_Line\\_Far\\_RightHANDBOOK.pdf](http://www.strategicdialogue.org/On_The_Front_Line_Far_RightHANDBOOK.pdf), accessed 14 September, 2016.
181. Robert Cookson, "Digital Advertising: Brands vs Bots", *Financial Times*, 18 July, 2016. [next.ft.com/content/fb66c818-49a4-11e6-b387-64ab0a67014c](http://next.ft.com/content/fb66c818-49a4-11e6-b387-64ab0a67014c), accessed 5 August, 2016.
182. Daniel O'Maley, "Is It Time for an Algorithm Ombudsman?", Center for International Media Assistance, 19 April, 2016. [www.cima.ned.org/blog/algorithm-ombudsman](http://www.cima.ned.org/blog/algorithm-ombudsman), accessed 21 July, 2016.
183. Peter Cunliffe Jones (executive director, Africa Check) in discussion with the author, Will Moy (director, Full Fact), and Phoebe Arnold (senior communications officer, Full Fact), July 2016.
184. Peter Cunliffe Jones (executive director, Africa Check) in discussion with the author, Will Moy (director, Full Fact), and Phoebe Arnold (senior communications officer, Full Fact), July 2016.
185. Jamie Bartlett, "Truth, Lies and the Internet: a Report into Young People's Digital Fluency", *Demos* (2011), 1–59. [www.demos.co.uk/files/Truth\\_-\\_web.pdf](http://www.demos.co.uk/files/Truth_-_web.pdf).
186. Louis Reynolds (researcher, Demos), in discussion with the author and Peter Pomerantsev (senior fellow, Legatum Institute), May 2016.
187. Louis Reynolds (researcher, Demos), in discussion with the author and Peter Pomerantsev (senior fellow, Legatum Institute), May 2016.
188. Louis Reynolds, "There's No Silver Bullet to Prevent Radicalisation", *Demos*, 16 May, 2016. [www.demos.co.uk/blog/theres-no-silver-bullet-to-prevent-radicalisation](http://www.demos.co.uk/blog/theres-no-silver-bullet-to-prevent-radicalisation), accessed 29 August, 2016.
189. Paul Copeland, "Factual Entertainment: How to media literacy popular", Legatum Institute, August 2016. [https://lif.blob.core.windows.net/lif/docs/default-source/publications/factual-entertainment-how-to-make-media-literacy-popular-pdf-\\_web.pdf?sfvrsn=4](https://lif.blob.core.windows.net/lif/docs/default-source/publications/factual-entertainment-how-to-make-media-literacy-popular-pdf-_web.pdf?sfvrsn=4) accessed 2 September, 2016.
190. Dr Walter Quattrociocchi (computer scientist, Lucca), in discussion with the author and Peter Pomerantsev (senior fellow, Legatum Institute), May 2016.
191. Chengcheng Shao et al., "Hoaxy: A Platform for Tracking Online Misinformation", 6 March, 2016. [arxiv.org/pdf/1603.01511v1.pdf](http://arxiv.org/pdf/1603.01511v1.pdf).
192. Alexios Mantzarlis, "Measuring the impact of fact-checkers", *Poynter*, October 21, 2015. <http://www.poynter.org/2015/measuring-the-impact-of-fact-checkers/380022/>, accessed 22 August, 2106.
193. Emily Thorson, from George Washington University, has articulated that people maintain their misperceptions even after they have been exposed to fact-checks; see Emily Thorson, "Identifying and Correcting Policy Misperceptions" (2015). [www.americanpressinstitute.org/wp-content/uploads/2015/04/Project-2-Thorson-2015-Identifying-Political-Misperceptions-UPDATED-4-24.pdf](http://www.americanpressinstitute.org/wp-content/uploads/2015/04/Project-2-Thorson-2015-Identifying-Political-Misperceptions-UPDATED-4-24.pdf).
194. Will Moy (director, Full Fact) and Phoebe Arnold (senior communications officer, Full Fact), in discussion with the author, July 2016.
195. This concept is central to most Foucauldian ideas of power. While a detailed understanding of the ideas is not required for the point being made, see Routledge, "Power/Knowledge" ([routledgesoc.com/category/profile-tags/powerknowledge](http://routledgesoc.com/category/profile-tags/powerknowledge), accessed 5 August, 2016) for more information.

## ABOUT THE AUTHOR

### **Alistair Shawcross**

Alistair Shawcross is a Research Intern in the Transitions Forum team at the Legatum Institute. His academic interests include the evolution of Islamism and the effect of transnational networks on the state in the Middle East and in particular, Iraq. Since finishing his studies, he has worked as a researcher for the conflict-resolution charity The Next Century Foundation, and as an analyst for the Strategic Communications company, SCL Group. Alongside his work with the Legatum Institute, Alistair is a Fellow of Forward Thinking. Alistair holds a BA in History from the University of Cambridge and an MSc in Middle East Politics (Distinction) from SOAS, University of London.



**LEGATUM INSTITUTE**

11 Charles Street  
Mayfair  
London W1J 5DW  
United Kingdom

t: +44 (0) 20 7148 5400

Twitter: @LegatumInst

[www.li.com](http://www.li.com)

[www.prosperity.com](http://www.prosperity.com)

978-1-911125-19-8



9 781911 125198

OCTOBER 2016