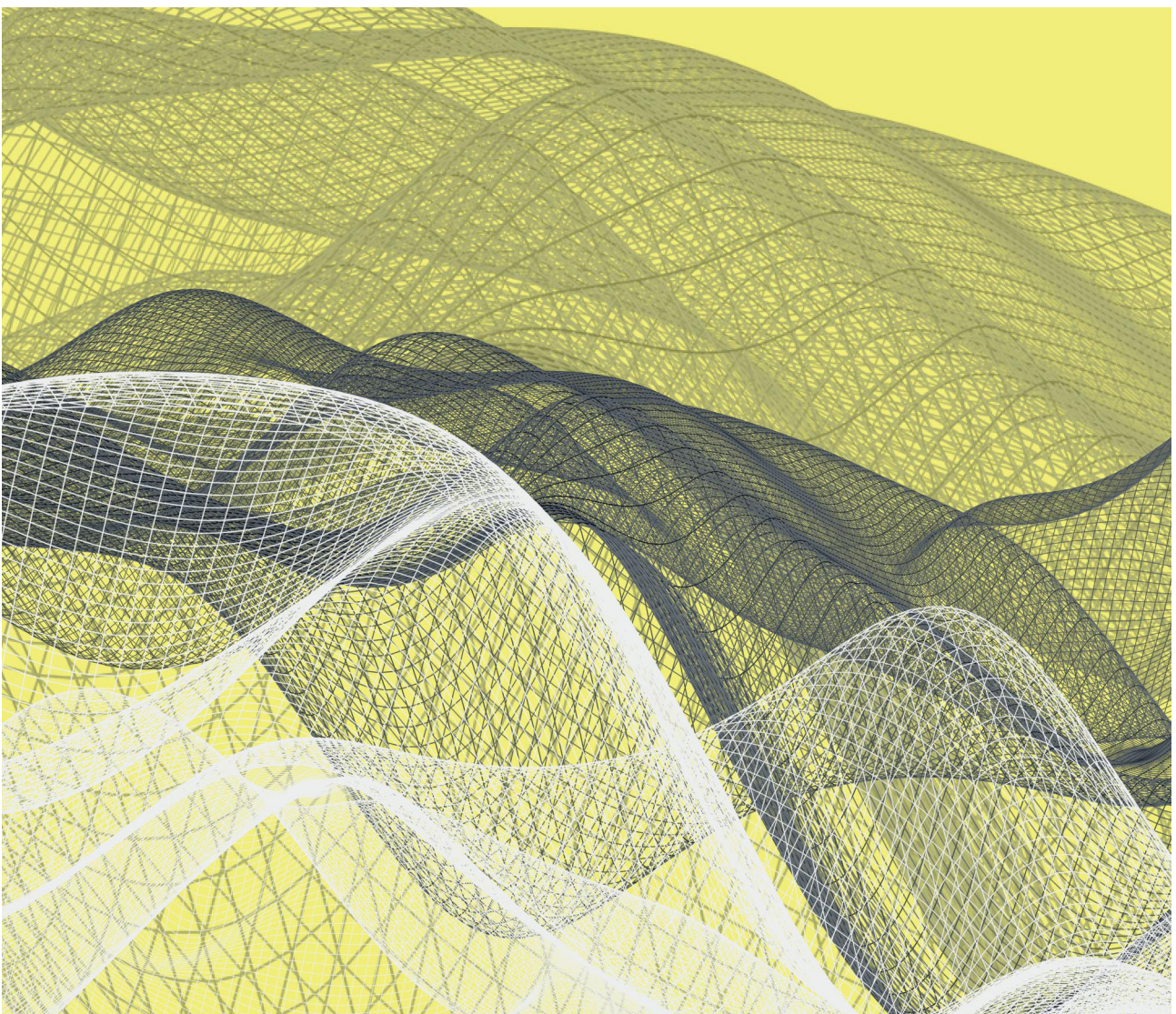
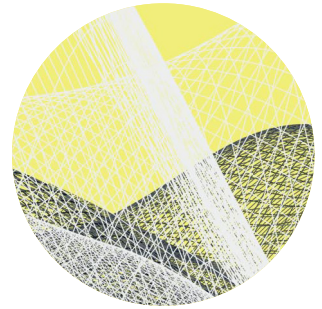


FEBRUARY 2020

Communicating fact checks online

Striking the balance between commanding
attention and conveying information



A JOINT BRIEFING FROM:



About this briefing

Misinformation causes real harm to people's lives, health, finances and to democracy. We need good evidence on how to tackle it. This briefing is part of a research programme set up by Africa Check, Chequeado and Full Fact to find that evidence and make it useful.

In this briefing Full Fact's Researcher **Dr. Dora-Olivia Vicol** explores the evidence on how to communicate fact checks to strike the right balance between commanding attention and conveying information online. We thank Paula Szewach and the research team at the Africa Centre for Evidence for their help in gathering regional evidence. We also extend our warmest thanks to Prof. Lisa Fazio, Libby Miller and Tristan Fern for their kind comments on earlier drafts.

We welcome feedback and comments at research@fullfact.org

Full Fact

2 Carlton Gardens
London
SW1Y 5AA

 research@fullfact.org

 [@FullFact](https://twitter.com/FullFact)

 fullfact.org

Africa Check

Johannesburg

 africacheck.org

Chequeado

Buenos Aires

 chequeado.com

This research was supported by a grant from Luminate.

Published by Africa Check, Chequeado and Full Fact, February 2020. Published under the Creative Commons Attribution-ShareAlike 4.0 International License.

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Summary

This briefing focuses on fact checking online. There are at least three good reasons why how we communicate is just as important as what we say.

Reach

How we communicate affects how many people we reach. Adding an image to a Tweet can make the difference between a fact check that gets seen, and one that is outranked by more attention grabbing posts.

Learning

Presentation also affects what audiences learn, and even what they believe to be true.

Credibility

Finally, certain media, such as pictures and videos, have an intrinsic ability to make text appear more believable.

However, things quickly get complicated. Visual elements, which have a reputation for helping engage audiences online, can improve learning in some conditions. But they can also distract and fatigue, placing undue burden on our attention capacity.

To get the balance right in practice, this briefing recommends focusing on clearly written articles, while making careful use of imagery to generate social media engagement. We summarise the key points here:

- Despite the emergence of a multitude of media formats, evidence suggests that articles which **place the most important information at the top, avoid jargon** and **keep distraction at a minimum**, are the most effective way of communicating information.
- Including **a relevant picture helps capture attention on social media**. By one measure, articles with pictures are seen four times more than headlines alone. But visual stimuli are a double edged sword. An image that mirrors the content of the article can strengthen learning, by giving readers a “second dose” of the same information, but a discordant image can distract.
- **Videos are a disputed tool**. Despite their popularity, videos are less able to generate social media engagement than pictures, and are a questionable way of conveying information. Only one study investigated them in the context of fact checking, finding them moderately better for learning than text-only stories.

Other literature indicates poorer learning outcomes than written articles, or articles with pictures, as well as a tendency to overload our attention and working memory.

It is important to acknowledge that there are limitations to what we know. The literature on fact checking is still small. The majority of studies on learning and veracity consist of lab experiments with US participants, who may resemble but are not representative of audiences worldwide. Field investigations focus on websites and social media, but there is much left to discover about the dynamics of direct messaging apps such as WhatsApp. Similarly, good presentation does not replace the need for clear and accessible content.

With this in mind, we see this briefing as the beginning of a conversation, which will be refined with further research and input from practitioners.

Three reasons why presentation matters

In fact checking, as in news publishing, there is a wide diversity of presentation styles. Online fact checks can come in long-form written articles with a range of features such as rating scales, images and other “add-ons”, such as bullet points or “claims and conclusions”.

Fact checkers also use a variety of visual and video formats on social media, and a diversity of formats offline. Offline channels are still an important forum, particularly in countries where internet penetration is not universal. In Nigeria for example, where radio is an important channel, Africa Check focuses part of its work on communicating on radio stations. Elsewhere, fact checkers partner with TV broadcasters to widen the reach of their work.

What can fact checkers learn from the scholarship on media formats? We reviewed the evidence and found that **presentation influences three key factors: audience engagement, learning and credibility.**

Reaching audiences

On the simplest level, presentation matters because it affects who we reach. If we want to be seen by larger audiences, **we have to reach them where they are getting their information**, and allow our content to stand out among other sources vying for their attention. For the purposes of this briefing we are focusing on fact checking online.

According to the Reuters Digital News Report, summarized in Fig 1, the online environment is the most common source of news in Argentina, South Africa and the UK¹ – though Ofcom, which uses a different methodology, finds TV to be slightly more

1 Nic Newman et al., ‘Reuters Institute Digital News Report 2019’ (Oxford: Reuters Institute, University of Oxford, 2019).

common in the UK.² Social media is used as a source of information by more than two thirds of adults in Argentina and South Africa, and almost half of adults in the UK.

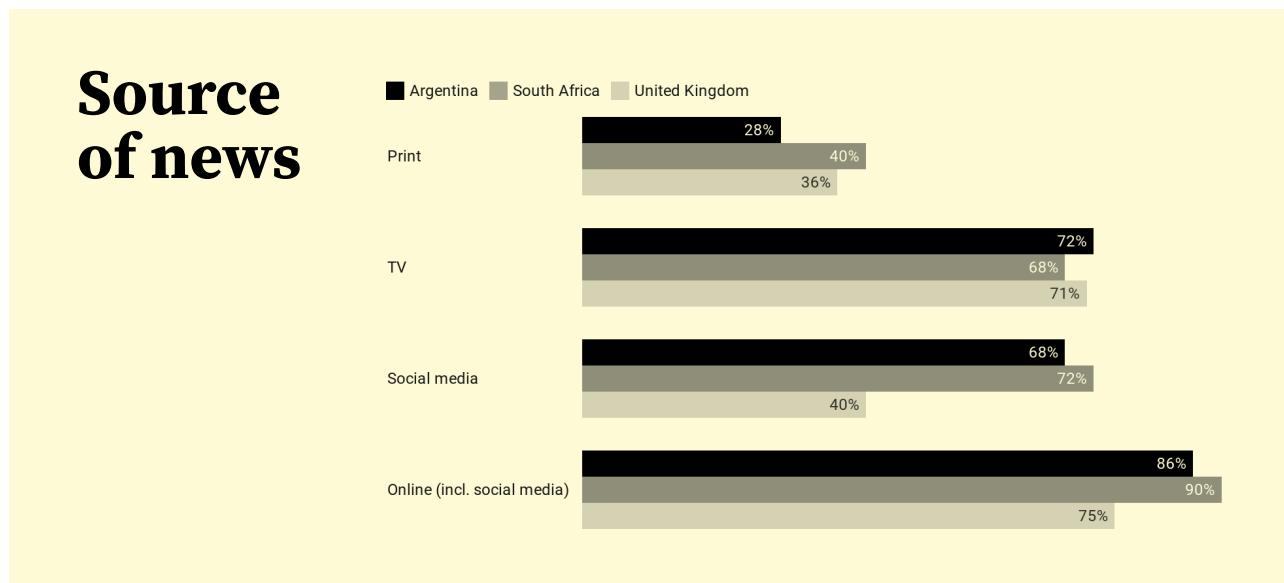


Fig. 1 SOURCE OF NEWS BY COUNTRY: *Reuters Digital News Report, 2019*

Facebook is most frequently used for news in these three countries, followed by WhatsApp. According to the same Reuters report, WhatsApp has witnessed an “explosive growth” across the Global South, and among the UK’s younger audience. As is apparent in Fig 2, WhatsApp is the go-to social media news source for around half (49%) of respondents in South Africa and over a third in Argentina, compared to just 10% in the UK.

This is not to say that radio, broadcast and other offline channels are no longer relevant. Many people get their news from two different channels. For others, online news is not even an option. While internet penetration is 95% in the UK, it stands at only 54% in South Africa.³

Overall however, the internet is a key source of information for millions of people. How, then, do we engage audiences online?

One well-known lesson for existing social media apps is that **imagery matters**, particularly pictures over videos. Adobe conducted a study in 2014 looking at consumer data for over 5000 brands and 500 billion Facebook post impressions. The study found that posts which included an image were four times more engaging than text-only

² Amy Sippitt, ‘Full Fact Audience Research’ (Full Fact, 2018), fullfact.org/media/uploads/full_fact_audience_research_final.pdf

³ Newman et al., ‘Reuters Institute Digital News Report 2019’, 68,148.

Use of social media for news

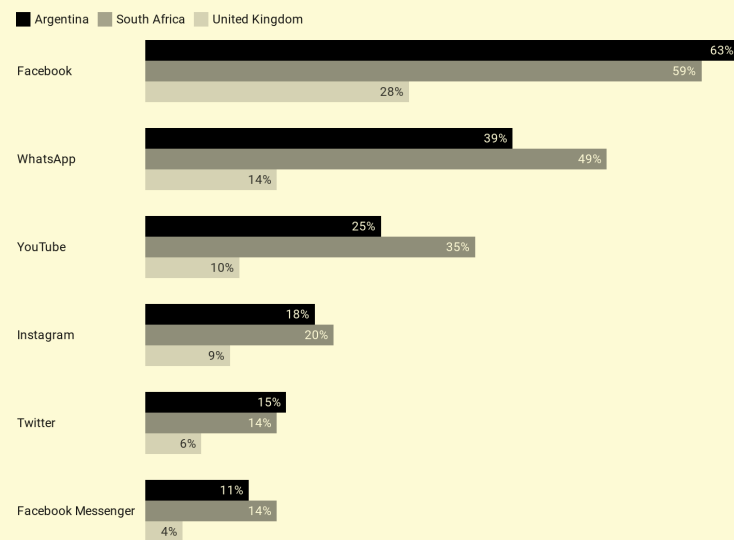


Fig. 2 USE OF SOCIAL MEDIA BY COUNTRY: *Reuters Digital News Report, 2019*

posts, and twice as engaging as videos – the geography of the sample is not specified.⁴ A further study which simulated news consumption on social media found that claims accompanied by a picture were more likely to be liked and shared.⁵ Indeed, research with news consumers in Brazil, Germany, the UK and the USA found that the headline and image provided the main draws to a Facebook story.⁶ Pictures, the authors note, contributed more to the likelihood of reading an article than the qualities of the news brand or the friend who posted it.

Videos, by contrast, are a more disputed tool of engagement. Despite the enthusiasm from a few years back, with Facebook founder Mark Zuckerberg claiming in 2015 that Facebook’s news feed would be mostly video in five years, video has been less popular than expected.⁷ Part of this was down to watch time inaccuracies. The *Wall Street Journal* reported in 2016 that Facebook had “vastly overestimated average viewing time for video ads”, by as much as “60 to 80 percent”.⁸ Recent BBC research conducted on young British viewers found that, even for content consumed on digital devices, video

4 Adobe Digital Index, ‘Social Intelligence Report: Q2 2015’, 2015, [cmo.com/content/dam/CMO_Other/ADI/ADI_Mobilegeddon/Q2-2015-Social-Intelligence-Report.pdf](https://www.adobe.com/content/dam/CMO_Other/ADI/ADI_Mobilegeddon/Q2-2015-Social-Intelligence-Report.pdf)

5 Elise Fenn et al., ‘Nonprobative Photos Increase Truth, Like, and Share Judgments in a Simulated Social Media Environment’, *Journal of Applied Research in Memory and Cognition*, 2019

6 Kantar Media, ‘The Changing Face of Social Media and the Rise of Messaging Apps for News’, Prepared for the Reuters Institute for the Study of Journalism, University of Oxford with the Support of the Google News Initiative, 2018, reutersinstitute.politics.ox.ac.uk/risj-review/changing-face-social-media-and-rise-messaging-apps-news.

7 ‘Mark Zuckerberg: Facebook News Feed Will Be Mostly Video in Five Years’, *The Hollywood Reporter*, accessed 12 November 2019, [hollywoodreporter.com/news/mark-zuckerberg-facebook-news-feed-784376](https://www.hollywoodreporter.com/news/mark-zuckerberg-facebook-news-feed-784376).

8 Suzanne Vranica and Jack Marshall, ‘Facebook Overestimated Key Video Metric for Two Years’, *Wall Street Journal*, 22 September 2016, sec. Business, www.wsj.com/articles/facebook-overestimated-key-video-metric-for-two-years-1474586951.

was not the most popular format.⁹ What participants preferred, rather, was jargon-free writing which gave them enough context to understand a story. In practice, what this meant was not additional visuals, but accessible summaries.

News formats in the digital age are a continuously developing field. Academics and news organisations are actively researching new ways to engage younger, internet-dwelling audiences. It is also fair to acknowledge, as the BBC's research with young audiences does, that fine-tuned presentation styles do not replace the need for content that is clear, comprehensive and accessible.

There is one clear conclusion that emerges from the evidence on audience engagement: fact checking comes with particular online communication conventions. One way to reach out to users is to make careful use of images, to stand out in the busy space of social media. Case studies 2 and 3 illustrate how this happens at Full Fact and Chequeado. Another way is to engage the public directly in spotting and reporting misinformation. Case study 1 illustrates how this happens at Africa Check.

Influencing learning

Despite the fact that visual elements are key to social media engagement, their ability to convey information varies. In terms of learning, **a clearly worded article is still the most effective way to get the facts across.**

Theories in support of multimedia argue that delivering the same message through text and visual format increases the likelihood of recollection. According to the “dual coding” theory, we process verbal and non-verbal image stimuli through two independent cognitive systems. By this measure, supporting an article with pictures or video material activates different processing centres in our brains, aiding recollection by acting, in effect, as a “double dose” of the same information.¹⁰

It is important to treat this enthusiasm with caution. Even though repeating information can, in theory, support learning, **no one has infinite attention** – this is something that psychologists call Limited Capacity Information Processing.¹¹ While reading a text requires a more effortful, “slow” type of processing,¹² other formats such as pictures, video and audio are inherent attention grabbers. Equally, it is important to remember that everyone's working memory is limited – this is known as the “cognitive load theory”. **Asking audiences to process stimulating, but ultimately nonessential**

9 BBC Research and Development, ‘Beyond 800 Words: What User Testing Taught Me About Writing News for Young People - BBC R&D’, 2018, 800, [bbc.co.uk/rd/blog/2018-12-news-user-testing-young-people](https://www.bbc.co.uk/rd/blog/2018-12-news-user-testing-young-people).

10 S. Shyam Sundar, ‘Multimedia Effects on Processing and Perception of Online News: A Study of Picture, Audio, and Video Downloads’, *Journalism & Mass Communication Quarterly* 77, no. 3 (1 September 2000): 480–99, doi.org/10.1177/107769900007700302.

11 Jacob T. Fisher et al., ‘The Limited Capacity Model of Motivated Mediated Message Processing: Taking Stock of the Past’, *Annals of the International Communication Association* 42, no. 4 (2018): 270–290.

12 Daniel Kahneman, *Thinking, Fast and Slow* (Macmillan, 2011).

material such as pictures, can overload, diminishing their abilities to process the information that matters most.

Psychologists and educational researchers have widely investigated the effects of “seductive details”.¹³ When it comes to visual stimuli in particular, individual experiments and meta-analyses find that too many demands on our attention can distract, fatigue and ultimately lead to poorer learning outcomes.

One experiment showed 60 university student participants in the US different versions of a news story. It found that text versions and versions which contained text and a picture led to significantly better information recollection than versions which used video and audio.¹⁴ Simultaneously exposing participants to more stimuli diverted attention to the audio and visual, and missed out textual captions which were key to understanding the story.¹⁵

Similar effects were identified across other research, which found that participants who read text-only versions of a news story learned more about the topic than those exposed to the same content in a multimedia format.^{16,17} A study which queried US participants after asking them to view a series of news websites found that participants were more likely to correctly recall facts, names and places when they were presented with information in text format – though new, unfamiliar and conceptual information was more accurately recalled when received in graphic format such as a diagram.¹⁸ Across the literature on learning too, a meta-analysis of articles published from 2003 to 2013 found that, on aggregate, visual based methods could generate interest in the learning process, but had mixed results on actual learning outcomes.¹⁹

Videos are a particularly contested learning tool – despite the interest they have received among marketing professionals and, more recently, in a study of fact checking. An experiment where 500 US participants were shown an inaccurate story about an infrastructure project’s purported link to job creation, found that a 59-second video debunk was more effective in correcting belief than a long-form article of 1,600

13 Günter Daniel Rey, ‘A Review of Research and a Meta-Analysis of the Seductive Detail Effect’, *Educational Research Review* 7, no. 3 (1 December 2012): 216–37, doi.org/10.1016/j.edurev.2012.05.003.

14 Sundar, ‘Multimedia Effects on Processing and Perception of Online News’.

15 Steve Outing and Laura Ruel, ‘The Best of Eyetrack III: What We Saw When We Looked Through Their Eyes’, Retrieved from archive.org, Poyntextra, 2004, web.archive.org/web/20110423062128/http://www.poynterextra.org/eyetrack2004/main.htm.

16 Val Pippis et al., ‘Information Recall of Internet News: Does Design Make a Difference? A Pilot Study.’, *Journal of Magazine & New Media Research* 11, no. 1 (2009).

17 Outing and Ruel, ‘The Best of Eyetrack III: What We Saw When We Looked Through Their Eyes’.

18 Outing and Ruel.

19 Ahmed Mohamed Fahmy Yousef, Mohamed Amine Chatti, and Ulrik Schroeder, *Video-Based Learning: A Critical Analysis of the Research Published in 2003-2013 and Future Visions* (eLmL, 2014).

words.²⁰ The authors argued that the digested packaging of the information fuelled comprehension, by easing respondents' cognitive load.

We would argue that more evidence is needed to support any large-scale pivot to video. The average length of a written fact check is not the 1,600 words participants were shown, but considerably shorter – at least at Africa Check, Chequeado and Full Fact. It is also doubtful whether viewers would watch a full information-heavy video outside lab conditions when, according to one marketing agency, average watch time is just ten seconds on Facebook.²¹

There are also practical limitations to fact checking in video. While the structure of text makes it easy to skim in search for a relevant detail, if viewers want to go back and forth between video sequences this can be a slow and frustrating process. Not every type of information lends itself to visual representation, and the cost and complexity of production make creating a video significantly harder and slower than drafting an article.

In the context of everyday fact checking, we can conclude that text is the most effective and practical format for combating misinformation.

Graphs can also be an effective way of summarizing data²² and introducing an audience to unfamiliar or highly conceptual information.²³ As we will see in the next section however, pictures can be a double edged sword.

Strengthening credibility

Visual information is the best format for building credibility. But fact checkers who seek to buttress the truth value of a story should remember that the sense of “evidence” inherent in a picture can also make it a distracting feature.

Every time we encounter a new statement we make an evaluation. We might consider where it stands in relation to what we know, and reflect on how we feel about the source. A number of psychology studies have found that, apart from this active process of deliberation, believing that something is true or not is also influenced by “processing fluency” – how well a story reads, how simple it is to pronounce or most frequently, how easily we can visualise it.²⁴

20 Dannagal G. Young et al., ‘Fact-Checking Effectiveness as a Function of Format and Tone: Evaluating FactCheck. Org and FlackCheck. Org’, *Journalism & Mass Communication Quarterly* 95, no. 1 (2018): 49–75.

21 MarketingLand, ‘5 Metrics to Measure the Success of Facebook Videos’, Marketing Land, 29 September 2017, marketingland.com/6-metrics-measure-success-facebook-videos-224452.

22 Brendan Nyhan and Jason Reifler, ‘The Roles of Information Deficits and Identity Threat in the Prevalence of Misperceptions’, *Journal of Elections, Public Opinion and Parties* 29, no. 2 (2019): 222–244.

23 Outing and Ruel, ‘The Best of Eyetrack III: What We Saw When We Looked Through Their Eyes’.

24 Adam L. Alter and Daniel M. Oppenheimer, ‘Uniting the Tribes of Fluency to Form a Metacognitive Nation’, *Personality and Social Psychology Review* 13, no. 3 (2009): 219–235.

One study exposed participants to a series of general knowledge claims, such as “macadamia nuts are in the same evolutionary family as peaches”. Results showed that claims accompanied by photos which did not present any new evidence in and of themselves (e.g., a picture of nuts), were nonetheless more likely to be rated as true.²⁵ Numerous papers have confirmed this finding since.

Psychologists have explained the link between information which is fluent, or easy to process, and credibility by arguing that fluency implies familiarity, and familiarity implies social consensus.²⁶ Though the effects in the macadamia nuts study were small, it has been widely argued that **images can give the viewer a sense of “being there”,²⁷ generating a so-called “truthiness effect”.**²⁸

What can fact checkers make of this? The simple answer is to exercise some caution.

The same appearance of “evidence” which can make pictures a useful tool when they mirror the message of an article, can weaken and even override the author’s intended conclusions, if the text diverges from the immediate message of the picture.

In a study where parents were shown versions of a fact check which debunked the link between vaccines and autism, the authors found that participants who saw versions which included a picture of sick children were less likely to believe the accompanying text.²⁹ Even though the illnesses portrayed were those prevented by vaccination, not caused by it, the visual association with illness was strong enough to reinforce the myth of anti-vaxxers.

More evidence supports this point. An experiment exposed 750 US participants to different versions of a fact check debunking a claim about a New York-based imam’s alleged support for terrorism.³⁰ The example was deliberately chosen to tap into the polarising issue of national identity, with a view to test whether participants were more or less likely to accept the evidence, if contextual details reproduced or diverged from mainstream representation of Americanness. The authors found that context matters a great deal. Belief correction was less effective when participants had seen a fact check accompanied by a picture of the imam in a mosque, which was selected to

25 Eryn J. Newman et al., ‘Truthiness and Falsiness of Trivia Claims Depend on Judgmental Contexts.’, *Journal of Experimental Psychology: Learning, Memory, and Cognition* 41, no. 5 (2015): 1337.

26 Norbert Schwarz et al., ‘Metacognitive Experiences and the Intricacies of Setting People Straight: Implications for Debiasing and Public Information Campaigns’, in *Advances in Experimental Social Psychology*, vol. 39 (Academic Press, 2007), 127–61, doi.org/10.1016/S0065-2601(06)39003-X.

27 Kevin Wise et al., ‘When Words Collide Online: How Writing Style and Video Intensity Affect Cognitive Processing of Online News’, *Journal of Broadcasting & Electronic Media* 53, no. 4 (2009): 532–546.

28 Fenn et al., ‘Nonprobative Photos Increase Truth, Like, and Share Judgments in a Simulated Social Media Environment’.

29 Brendan Nyhan et al., ‘Effective Messages in Vaccine Promotion: A Randomized Trial’, *Pediatrics* 133, no. 4 (2014): e835–e842.

30 R. Kelly Garrett, Erik C. Nisbet, and Emily K. Lynch, ‘Undermining the Corrective Effects of Media-Based Political Fact Checking? The Role of Contextual Cues and Naïve Theory’, *Journal of Communication* 63, no. 4 (2013): 617–637.

reflect a stereotype of otherness, than when the accompanying picture portrayed him wearing a suit before an ethnically diverse audience, in a stereotype of an “integrated” American Muslim.

For obvious reasons, issues in this area should be approached with sensitivity, as dominant narratives may themselves be misleading or offensive. Care must be taken not to play into general misconceptions in an effort to correct specific misconceptions. Overall however, these examples illustrate that the inherent credibility of visual data means we must use images carefully. Images are an excellent way to command attention and strengthen credibility. It is important to ask ourselves what story they convey, and how much that mirrors our conclusions.

Everyday implications

The evidence on what shapes engagement, learning and credibility presents fact checkers with a few recommendations. Videos are best used sparingly, since they are neither the best at generating engagement, nor very good at conveying information. Pictures are a powerful but ambivalent format, which can aid learning and engagement when used along with a well-written article, but also distract if they clash with written conclusions. Text remains, overall, the better format for conveying information. There are a few ways we can fine-tune them.

Recommendations for text-based fact checks

Putting the most important information at the top is an effective learning tool.

A study of 210 participants which investigated the effect of news structure upon processing time and memory, found that “inverted pyramid” stories which place key information at the top were recalled earlier, more accurately, and took less time to read than narrative counterparts – though narratives might be better suited for new and unfamiliar concepts.³¹ There is still more to discover about how text structures may change on digital devices.

Shorter paragraphs laid out in one column get more attention. Data from an eye tracking study commissioned by the Poynter Institute revealed that stories with short paragraphs received twice as many overall eye fixations as those with longer paragraphs. A short (and readable) paragraph sits somewhere between 2 and 3 sentences. Text presented in one column was read for longer.³²

31 Tessa I. DeAngelo and Narine S. Yeghyan, ‘Looking for Efficiency: How Online News Structure and Emotional Tone Influence Processing Time and Memory’, *Journalism & Mass Communication Quarterly* 96, no. 2 (1 June 2019): 385–405, doi.org/10.1177/1077699018792272.

32 Outing and Ruel, ‘The Best of Eyetrack III: What We Saw When We Looked Through Their Eyes’.

Layout plays a role in how much information is retained. An experiment which asked 67 university students to read a factual passage from an online encyclopaedia found that comprehension was affected by the amount of visual clutter accompanying the article.³³ Participants retained more when the factual passages were surrounded by white space than when they were surrounded by non-essential information.

Shorter lines increase the speed and pleasure of reading. Every time we read a line of text, our eyes alternate between quick jumps of seven to nine letters, called saccades, and moments of visual concentration, called fixations. Studies which examined different text formats found that lines of approximately 55 characters in length are optimal for both reading speed and comprehension.³⁴ Longer lines (85-100 characters) slow reading down by making it harder to locate the beginning of the next saccade, while shorter ones (55-70 characters) make it harder to absorb information in each fixation.

Finally, regardless of length, detailed refutations are more effective at correcting belief than a simple correction. A fact check which provides a complete account of what *did* happen is more effective than a retraction which simply states that something did not happen³⁵ – we have covered this in our briefing *Fact checking in the 2019 election: research recommendations* [↗](#). Encouragingly, fact checkers need not avoid depth or detail in order to keep readers' attention. A study which asked participants to provide feedback on the interest generated by different news articles found only a very weak correlation between word length and associated reading time.³⁶ Most articles were read in parts, and interest depended much more on the topic than format alone. The literature suggests one cutoff point falls at around 1,000 words, but more research is needed to confirm this.

Recommendations for using pictures

Consider whether your picture reinforces your message, or reinforces what is inaccurate. As we've discussed with the example of pictures of sick children in fact checks of vaccine claims, the picture associated with your fact check can potentially harm your corrective message if it reinforces the inaccurate claim. It is important to consider what message is conveyed or associated with any pictures you use. In practice, this is not always easy to decipher, and this is an area that needs more

33 Jess McMullin et al., 'Effects of Surrounding Information and Line Length on Text Comprehension from the Web', *Canadian Journal of Learning and Technology / La Revue Canadienne de l'apprentissage et de La Technologie* 28, no. 1 (15 February 2002), learntechnology.org/p/42826.

34 Mary C. Dyson and Mark Haselgrove, 'The Influence of Reading Speed and Line Length on the Effectiveness of Reading from Screen', *International Journal of Human-Computer Studies* 54, no. 4 (2001): 585–612.

35 Nathan Walter and Sheila T. Murphy, 'How to Unring the Bell: A Meta-Analytic Approach to Correction of Misinformation', *Communication Monographs* 85, no. 3 (3 July 2018): 423–41, doi.org/10.1080/03637751.2018.1467564.

36 Dmitry Lagun and Mounia Lalmas, 'Understanding User Attention and Engagement in Online News Reading', in *Proceedings of the Ninth ACM International Conference on Web Search and Data Mining* (ACM, 2016), 113–122.

attention. For example, in a fact check of an inaccurate claim about increased spending on health services, does using an image of a hospital reinforce the inaccuracy? This is an area we hope to look into more.

Focal points, emotion and human subjects get more engagement, but we are far from finding an image formula. There is ample evidence across psychology research that human attention is easily grabbed by emotional content. An eye tracking study found that emotional pictures were observed quicker and for longer than neutral pictures.³⁷ It is not surprising that commercial marketing tips also recommend using images with high emotional expressiveness. Facebook and marketing agency Curalate, which examined a sample of eight million Instagram pictures, note that pictures of people, pictures with a clear focal point, and with small amounts of text are best at garnering user attention. There is more debate on colour. Curalate recommends images with low colour saturation, a single dominant hue and more texture as a means to receive a higher level of engagement — though this was focused on Instagram where these are particularly popular.³⁸ Facebook, in contrast, recommends vibrant images. Other academic studies found that engagement with advertising also varied with the age, gender, and level of attractiveness of human subjects.³⁹

Bigger pictures get longer views. A study which tracked how 60 US participants engaged with content on 25 news websites, found that pictures generated more eye fixations than text, and the time viewers spent on an image increased with its size and subject matter.⁴⁰

Conclusion

Publishing in the age of online news consumption presents fact checkers with a puzzle: how to ensure that good content is visible, while also avoiding distracting our audience with an excess of visual stimuli — or worse, reinforcing inaccurate information.

This briefing suggests that one way of getting this balance right might be to focus on writing a good story to ensure learning, then make strategic use of relevant pictures on social media to ensure audience engagement.

As far as learning goes, the research we consulted indicates that articles which give a full account, place the most important elements up front, and are presented in a clear layout, are the most effective at ensuring fact recollection.

37 Lauri Nummenmaa, Jukka Hyönä, and Manuel G. Calvo, 'Eye Movement Assessment of Selective Attentional Capture by Emotional Pictures.', *Emotion* 6, no. 2 (2006): 257.

38 Brendan Lowry, '6 Image Qualities Which May Drive More Likes on Instagram', Curalate Social Commerce Platform, 25 November 2013, curalate.com/blog/6-image-qualities-that-drive-more-instagram-likes.

39 Michael J. Baker and Gilbert A. Churchill Jr, 'The Impact of Physically Attractive Models on Advertising Evaluations', *Journal of Marketing Research* 14, no. 4 (1977): 538–555.

40 Outing and Ruel, 'The Best of Eyetrack III: What We Saw When We Looked Through Their Eyes'.

Visuals are key when it comes to engaging the audience. External research conducted by marketing agencies and fact checking organisations' own assessments of different formats suggest that graphics are better able to capture attention than headlines alone – but care must be taken not to overload readers once they make it to our websites.

Having said this, all research recommendations require a level of caution. It is fair to acknowledge that we are far from finding a perfect image formula, and elements of time, context and subject matter affect the attention a post receives. We see this as the beginning, not the end, of recommendations, which will be refined with further evidence and input from practitioners.

The case studies below illustrate the variety of ways in which fact checking organisations engage their online audiences in practice.

Case Studies

Africa Check spots “What’s Crap on Whatsapp”

In March 2019 Africa Check and Volume, a platform that supports community radio stations in Africa, launched “What’s Crap on WhatsApp?”.

The project seeks to identify and reduce the circulation of false claims, by allowing people to forward suspicious stories directly to the project’s WhatsApp number.

Every day the team logs the content received, aiming to select four or five claims to check every month – usually these are a combination of the most requested and most harmful claims. A five-minute audio note show is recorded, then sent out to subscribers via WhatsApp on the first Friday of the month. The format makes it easy to listen and share on any smartphone, without incurring high data costs or sign up barriers.

The Deputy Chief Editor at Africa Check, Kate Wilkinson, notes that there is a trade-off. Despite being easy to listen to, audio notes do not offer analytics to show how many times the show is played or shared. Currently, the team quantifies its use by asking users to submit an emoji response about their enjoyment.

Overall, since the launch of the project, Africa Check reported an overwhelming interest in this initiative. Over 280 subscribers signed up in the first two days, rising to around 1,800 subscribers at the time of writing. The project won the 2019 Poynter Institute International Fact-Checking Network’s Fact Forward Fund Award. It has received \$50,000 USD to pilot and run the project for another 12 months.

Chequeado adds a dose of humour to visual fact checks

During the 2016 #LatamChequea Latin American journalism conference, the director of the Open Society Program on Independent Journalism, María Teresa Ronderos, highlighted the benefits of adding humour to journalism. Humour, she argued, could make a powerful complement to fact checking. Based on this, Chequeado started to produce humoristic animated GIFs. Once a week at first, a selection of written fact checks were adapted into GIF format, and published on Chequeado's social media channels.



A simple comparison showed that GIFs were much better at engagement than other fact checks. Tweets with GIFs got 34% more retweets, and 72% more likes than the same post without the animation, published one day apart. In the interests of balance, the GIFs in question had identical accuracy ratings for the president, Mauricio Macri, and the former president, Cristina Fernández de Kirchner. While it cannot be established with certainty whether it was the visual format, or the light hearted tone that lead to the GIFs' popularity, the expected complaints never happened. The new format was welcomed by Chequeado's community.

Full Fact reaches out with debunk images

The summer of 2019, Full Fact started a regular campaign of reaching out to social media users with simple, visually engaging debunks of commonly spotted memes.

Every image was designed to capture the claim, its truth value, and underlying explanation in one image.



Headings were intended to stand out to a busy audience, making it simple to spot what was (in)accurate, but also to offer an entry point into the detailed explanations in small font – which engage the effortful System 2 thinking. On a different level, the graphics

were designed to stimulate viewers to look out for similar inaccuracies, and spot the giveaway details as they went about their everyday lives.

Social media analytics on a sample of eight infographics indicate that, in all but one instance, they received between 40% and 485% (almost five times) more shares than Full Fact's Facebook posts on average. Similar differences were observed in Twitter shares.

These differences are also explained by the topic in question, and the level of public interest it generated. Overall however, while it is fair to say that graphics do not change everything, the trend so far indicates that they can make a sizable improvement to fact checkers' abilities to engage audiences online.

How we selected the studies

The evidence which informs this briefing mainly comes from academic research organisations. Sources are selected based on prominence in the field and robustness of methodology, but are also shaped by the authors' expertise and interest.

Overall, we look at four primary studies and four review articles which discussed the role of communicating fact checks in particular. But we also look beyond that, at literature from news consumption, learning and the psychology of information more broadly.

With a view to provide practical recommendations, we focus on experimental studies where respondents are randomly assigned to treatment and control groups. We also review observational studies which draw on field data, seeking to provide recommendations which are as close to the conditions encountered by fact checkers as possible. Where academic publications are scarce, we drew on data from corporate actors such as Adobe, Facebook and marketing agency Curalate.

Caveats

A first caveat is that there is still much we do not know. The literature on fact checking is young, and even more so in the subsection of studies which look at the effects of presentation. Our conclusions could be strengthened by future work which investigates in more depth the effectiveness of videos and different visual formats, using comparative designs and more diverse samples.

Much of the literature we consulted is based on US participants, often students, who may resemble, but are hardly identical to readers in the UK, Argentina, South Africa or Nigeria. After an extensive review of academic databases, we found almost no studies on Latin America. Specific keywords like "news format", "news layout" or "news style" combined with Latin America did not provide any relevant results in databases such as Web of Science, Google Scholar or Redalyc. This diagnosis does not come as a

surprise. According to one review, the fields of media and communication studies in Latin America are organized around distinctive theoretical and analytical traditions compared to the predominant ones in the United States and Europe.⁴¹

Finally, care is needed to interpret the results of lab experiments which simulate but cannot perfectly replicate the many personal and environmental factors which shape information processing in real-life situations. More field research, and qualitative insights in particular, could add nuance to our conclusions, shedding light on how ordinary news consumers interact with different formats.

With these caveats in mind, we have taken a number of precautions.

Wherever possible, we foreground results which have been repeatedly corroborated across independent publications. We detail prominent experiments to help our readers understand the dynamics at play, but refrain from ever basing recommendations upon a single study. We draw attention to instances when academic consensus is lacking, and are clear about what we do not know.

As any piece of research, the conclusions we make are our interpretation of the research evidence. This briefing marks the beginning, not the end of a conversation on misinformation. It remains open to nuancing, and the authors welcome input from researchers and practitioners.

⁴¹ Silvio Waisbord, 'United and Fragmented: Communication and Media Studies in Latin America', *Journal of Latin American Communication Research* 4, no. 1 (2014): 55–77.

Bibliography

- Adobe Digital Index. 'Social Intelligence Report: Q2 2015', 2015. cmo.com/content/dam/CMO_Other/ADI/ADI_Mobilegeddon/Q2-2015-Social-Intelligence-Report.pdf.
- Alter, Adam L., and Daniel M. Oppenheimer. 'Uniting the Tribes of Fluency to Form a Metacognitive Nation'. *Personality and Social Psychology Review* 13, no. 3 (2009): 219–235.
- Baker, Michael J., and Gilbert A. Churchill Jr. 'The Impact of Physically Attractive Models on Advertising Evaluations'. *Journal of Marketing Research* 14, no. 4 (1977): 538–555.
- BBC Research and Development. 'Beyond 800 Words: What User Testing Taught Me About Writing News for Young People - BBC R&D', 2018. bbc.co.uk/rd/blog/2018-12-news-user-testing-young-people.
- DeAngelo, Tessa I., and Narine S. Yeghyan. 'Looking for Efficiency: How Online News Structure and Emotional Tone Influence Processing Time and Memory'. *Journalism & Mass Communication Quarterly* 96, no. 2 (1 June 2019): 385–405. doi. [org/10.1177/1077699018792272](https://doi.org/10.1177/1077699018792272).
- Dyson, Mary C., and Mark Haselgrove. 'The Influence of Reading Speed and Line Length on the Effectiveness of Reading from Screen'. *International Journal of Human-Computer Studies* 54, no. 4 (2001): 585–612.
- Fenn, Elise, Nicholas Ramsa, Justin Kantner, Kathy Pezdek, and Erica Abed. 'Nonprobative Photos Increase Truth, Like, and Share Judgments in a Simulated Social Media Environment'. *Journal of Applied Research in Memory and Cognition*, 2019.
- Fisher, Jacob T., Justin Robert Keene, Richard Huskey, and René Weber. 'The Limited Capacity Model of Motivated Mediated Message Processing: Taking Stock of the Past'. *Annals of the International Communication Association* 42, no. 4 (2018): 270–290.
- Garrett, R. Kelly, Erik C. Nisbet, and Emily K. Lynch. 'Undermining the Corrective Effects of Media-Based Political Fact Checking? The Role of Contextual Cues and Naïve Theory'. *Journal of Communication* 63, no. 4 (2013): 617–637.
- Kahneman, Daniel. *Thinking, Fast and Slow*. Macmillan, 2011.
- Kantar Media. 'The Changing Face of Social Media and the Rise of Messaging Apps for News'. Prepared for the Reuters Institute for the Study of Journalism, University of Oxford with the Support of the Google News Initiative, 2018. reutersinstitute.politics.ox.ac.uk/risj-review/changing-face-social-media-and-rise-messaging-apps-news.
- Lagun, Dmitry, and Mounia Lalmas. 'Understanding User Attention and Engagement in Online News Reading'. In *Proceedings of the Ninth ACM International Conference on Web Search and Data Mining*, 113–122. ACM, 2016.
- Lowry, Brendan. '6 Image Qualities Which May Drive More Likes on Instagram'. Curalate Social Commerce Platform, 25 November 2013. curalate.com/blog/6-image-qualities-that-drive-more-instagram-likes.
- The Hollywood Reporter. 'Mark Zuckerberg: Facebook News Feed Will Be Mostly Video in Five Years'. Accessed 12 November 2019. hollywoodreporter.com/news/mark-zuckerberg-facebook-news-feed-784376.
- MarketingLand. '5 Metrics to Measure the Success of Facebook Videos'. Marketing Land, 29 September 2017. marketingland.com/6-metrics-measure-success-facebook-videos-224452.
- Marshall, Suzanne Vranica and Jack. 'Facebook Overestimated Key Video Metric for Two Years'. *Wall Street Journal*, 22 September 2016, sec. Business. wsj.com/articles/facebook-overestimated-key-video-metric-for-two-years-1474586951.

- McMullin, Jess, Connie Varnhagen, Pheng Heng, Xornam Apedoe, and Xornam Apedoe. 'Effects of Surrounding Information and Line Length on Text Comprehension from the Web'. *Canadian Journal of Learning and Technology / La Revue Canadienne de l'apprentissage et de La Technologie* 28, no. 1 (15 February 2002). learntechlib.org/p/42826.
- Newman, Eryn J., Maryanne Garry, Christian Unkelbach, Daniel M. Bernstein, D. Stephen Lindsay, and Robert A. Nash. 'Truthiness and Falsiness of Trivia Claims Depend on Judgmental Contexts.' *Journal of Experimental Psychology: Learning, Memory, and Cognition* 41, no. 5 (2015): 1337.
- Newman, Nic, Richard Fletcher, Antonis Kalogeropoulos, and Rasmus Kleis Nielsen. 'Reuters Institute Digital News Report 2019'. Oxford: Reuters Institute, University of Oxford, 2019.
- Nummenmaa, Lauri, Jukka Hyönä, and Manuel G. Calvo. 'Eye Movement Assessment of Selective Attentional Capture by Emotional Pictures.' *Emotion* 6, no. 2 (2006): 257.
- Nyhan, Brendan, and Jason Reifler. 'The Roles of Information Deficits and Identity Threat in the Prevalence of Misperceptions'. *Journal of Elections, Public Opinion and Parties* 29, no. 2 (2019): 222-244.
- Nyhan, Brendan, Jason Reifler, Sean Richey, and Gary L. Freed. 'Effective Messages in Vaccine Promotion: A Randomized Trial'. *Pediatrics* 133, no. 4 (2014): e835-e842.
- Outing, Steve, and Laura Ruel. 'The Best of Eyetrack III: What We Saw When We Looked Through Their Eyes'. Retrieved from archive.org. Poyntextra, 2004. [web.archive.org/web/20110423062128/http://www.poynterextra.org/eyetrack2004/main.htm](http://www.poynterextra.org/eyetrack2004/main.htm).
- Pipps, Val, Heather Walter, Kathleen Endres, and Patrick Tabatcher. 'Information Recall of Internet News: Does Design Make a Difference? A Pilot Study.' *Journal of Magazine & New Media Research* 11, no. 1 (2009).
- Rey, Günter Daniel. 'A Review of Research and a Meta-Analysis of the Seductive Detail Effect'. *Educational Research Review* 7, no. 3 (1 December 2012): 216-37.
- Schwarz, Norbert, Lawrence J. Sanna, Ian Skurnik, and Carolyn Yoon. 'Metacognitive Experiences and the Intricacies of Setting People Straight: Implications for Debiasing and Public Information Campaigns'. In *Advances in Experimental Social Psychology*, 39:127-61. Academic Press, 2007. [doi.org/10.1016/S0065-2601\(06\)39003-X](https://doi.org/10.1016/S0065-2601(06)39003-X).
- Sippitt, Amy. 'Full Fact Audience Research'. Full Fact, 2018. fullfact.org/media/uploads/full_fact_audience_research_final.pdf.
- Sundar, S. Shyam. 'Multimedia Effects on Processing and Perception of Online News: A Study of Picture, Audio, and Video Downloads'. *Journalism & Mass Communication Quarterly* 77, no. 3 (1 September 2000): 480-99. doi.org/10.1177/107769900007700302.
- Waisbord, Silvio. 'United and Fragmented: Communication and Media Studies in Latin America'. *Journal of Latin American Communication Research* 4, no. 1 (2014): 55-77.
- Walter, Nathan, and Sheila T. Murphy. 'How to Unring the Bell: A Meta-Analytic Approach to Correction of Misinformation'. *Communication Monographs* 85, no. 3 (3 July 2018): 423-41. .
- Wise, Kevin, Paul Bolls, Justin Myers, and Miglena Sternadori. 'When Words Collide Online: How Writing Style and Video Intensity Affect Cognitive Processing of Online News'. *Journal of Broadcasting & Electronic Media* 53, no. 4 (2009): 532-546.
- Young, Dannagal G., Kathleen Hall Jamieson, Shannon Poulsen, and Abigail Goldring. 'Fact-Checking Effectiveness as a Function of Format and Tone: Evaluating FactCheck. Org and FlackCheck. Org'. *Journalism & Mass Communication Quarterly* 95, no. 1 (2018): 49-75.
- Yousef, Ahmed Mohamed Fahmy, Mohamed Amine Chatti, and Ulrik Schroeder. *Video-Based Learning: A Critical Analysis of the Research Published in 2003-2013 and Future Visions*. eLmL, 2014.

Full Fact

2 Carlton Gardens
London
SW1Y 5AA



research@fullfact.org



[@FullFact](https://twitter.com/FullFact)



fullfact.org

Africa Check

Johannesburg



africacheck.org

Chequeado

Buenos Aires



chequeado.com