Mass Media, Behaviour Change & Peacebuilding

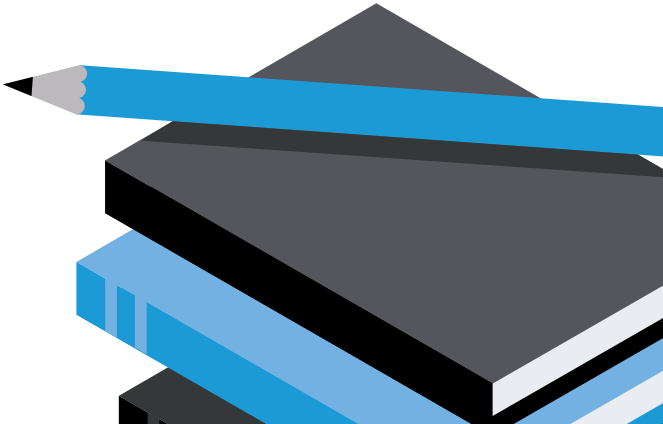A discussion paper from the Behavioural Insights Team

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THE
**BEHAVIOURAL
INSIGHTS
TEAM**

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Executive summary

Up to 100,000 people are killed each year as a result of violent conflict. But this is only one part of the human cost. Impact on families and communities can be felt decades later. Millions of individual decisions underpin these tragic impacts: people decide either to stoke hatred or to confront it, to fight or to lay down weapons, and to forgive past conflicts or to repeat them.

Mass media and propaganda has often been used as a tool to generate hatred and perpetuate conflict. The purpose of this review was to understand whether it can also be a tool for maintaining and rebuilding peace. We reviewed the evidence of mass media's impact on peacebuilding behaviours to identify if (and how) it works, and to suggest approaches for harnessing mass media in the future.

The three most important takeaways are:

1

Mass media can drive sustained changes in behaviour

We found evidence of mass media affecting a wide range of conflict behaviours, from increased willingness to speak out against interpersonal violence, to encouraging militants to put down weapons, or increasing engagement in peaceful democratic processes. Some effects persisted months later, even for videos just a few minutes long.

2

Changing audiences' perceptions of their social environment drives changes in behaviour

Mass media can change behaviour without affecting underlying attitudes. Instead, it often changes audiences' perceptions of how other people would behave. Sometimes it does this directly, by using storylines of people acting positively or supporting those who do. Sometimes the media provokes discussions with friends and family, and in doing so reveals how they feel about a behaviour (for better or for worse…).

3

Media can backfire, and we need to improve our understanding of what works

Not all media interventions achieve their desired effect. Many have no effect at all, and some make things worse. In order to start using mass media effectively for peacebuilding, we need to learn what works through robust evaluations of new and existing programmes. We suggest three approaches for better evaluations, and some suggestions for measuring complex behaviours.

Summary of recommendations

These recommendations relate to specific insights identified throughout the review.

Click on the heading to read more about how they can be applied, and the evidence underpinning them.
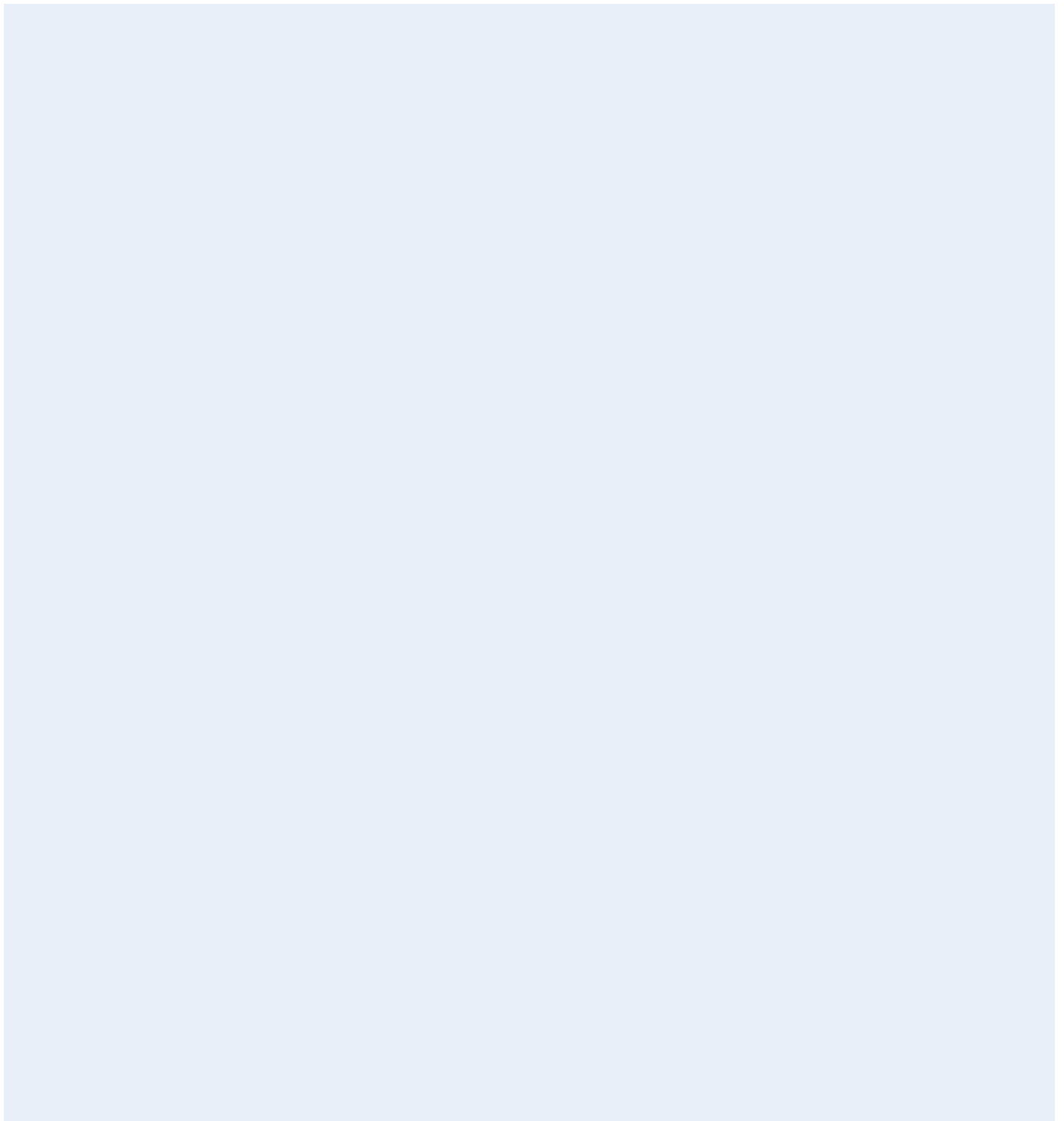
Introduction

Violent conflict is one of the most pressing challenges facing humanity. Armed violence causes physical devastation, suffering, displacement and death. It creates trauma now and for generations to come.

Between 55,000 and 100,000 people are killed each year as a result of violent conflict.[1] In 2019, more than 68 million people across the globe were displaced due to conflict or persecution — the highest number recorded for 30 years.[2] There were 54 state-related violent conflicts worldwide — the highest number since 1975.[3]

So how can we reduce violent conflict or prevent it from happening in the first place? Mass media, such as TV, radio and the internet, through its exceptional reach can influence and mobilise not just individuals, but also communities and populations. But mass media can also be part of the problem when it is used to promote violence and social polarisation, or to facilitate the recruitment of insurgent groups. And it can do so at a relatively low cost.[4]

This paper puts forward how behavioural insights and mass media can be used together to promote peace-building. The behavioural insights approach consists of using the latest evidence on what influences behaviour, applying this knowledge to real-life issues and evaluating if it makes a difference. The use of this approach has grown over the last ten years but has barely been used in the field of peace-building.

We propose that by combining art and science, story-telling and psychological research, it is possible to drive positive change. In a context where resources are scarce, we want policy-makers, funders and international organisations to use these findings and tools to better inform and evaluate their policies and programmes.

A behavioural model of peacebuilding

Humans are tribal. We have an evolved tendency to form and prefer our own group. We are also emotional and our actions are often driven by rapid and unconscious processes, such as the need to preserve a positive sense of self. Our unconscious instincts and our in-group preferences combine to create our worldview; one in which our biases and self-serving attributions create a different lens for understanding our own behaviour from that which we apply to others.[5] [6]

Situational and structural factors also interact with our behavioural instincts, often exacerbating them. For example, people who are accustomed to violent behaviour may behave in violent ways as part of harmful, automatic patterns of thinking and acting.[7] These behaviours can become normalised and reinforced as part of a group culture, as is often the case for urban street gangs,[8] armed militias, and military forces. A conflict environment can also create cues that individuals associate with violence - such as temperature, memories, or a 'hot-headed' emotional state[9] [10] [11] - that prompt further violence.

Understanding these behavioural and structural drivers of violence is the first step in combating them. The next step is to identify insights that help to overcome these barriers to design more effective peacebuilding interventions.

One example comes from Liberia. Cognitive behavioural therapy (CBT) has been widely used as a tool for reducing violence by addressing the psychological drivers and narratives that perpetuate violence. In this study,[12] a thousand criminally-engaged Liberian men were randomised to receive either eight weeks of CBT, $200 in cash, neither or both (the cash was to help reduce the structural motivators for crime, by providing a savings buffer or investment opportunity). CBT reduced the men's' crime and violence rates in the short-run, but over time the effects dissipated. However, men that received CBT followed by $200 in cash saw reductions in crime and violence sustained as much as a year later.

This finding highlights how both structural and psychological factors play key roles in shaping human behaviour that can drive conflict; behavioural insights on their own are not going to achieve world-peace, but are one important piece of the puzzle. By understanding how humans behave in practice, we are able to design more effective programmes that can reduce violence and conflict.

Mass media, an innovative tool for Peace

Mass media can reach people more widely than any other tool and influence mass behaviour change, for better or for worse. Facebook, for example, played a crucial role in driving the genocide against the Rohingya in Myanmar, as false stories about Muslims' actions in Rakhine state flooded Facebook in Myanmar in the run up to the atrocities.[13]

But, if used wisely, mass media can also promote peace. A key component of conflict resolution is the ability and willingness to imagine another's perspective.[14] By encouraging mutual understanding and highlighting positive interactions, mass media can shift violent norms towards more peaceful alternatives.[15]

One way in which mass media achieves this is through sharing stories. The impact of art and media - such as books and movies - is a result of taking the perspectives of the characters depicted within the story. As described by Wayne C. Booth, "art is a bridge between one mind and another … it's a primary way in which people create and exchange meaning".[16] These individual stories are powerful – we think of individuals as having more ability to feel than groups, and are more likely to empathise with the story of an individual than the story of a group. Indeed, positive media exposure to individual out-group members appears to improve attitudes towards the out-group as a whole.[17] [18]

By putting these stories into the homes and phones of people across the globe, mass media can create a bridge between ourselves and others in a way that other forms of communication are not able to. It is this that gives mass media the potential to reduce conflict at a global scale.

Reach of mass media channels

Internet
Nearly half of the world's population used the internet in 2017, up from about a third in 2010.[19]

Mobiles
There are now more mobile phones than there are people in the world — with 5 billion people using mobile devices, over half of these being smartphones.[20]

Radio
Around 75% of households in developing countries have access to a radio and there are more than 44,000 radio stations worldwide.[21]

Television
Approximately 2.6 billion people watched the 2012 Olympics and 2018 FIFA Men's Football World Cup.[22]

Insights from the evidence

The starting point for understanding how mass media can affect peacebuilding behaviours is to know what has worked (or hasn't) so far. Examples of mass media applied to peacebuilding are particularly useful, but we can also learn a lot about how mass media affects behaviour by looking at its use in other spheres. In this section we consider both:

looking first at the evidence for mass media interventions in general, before focusing on specific examples related to peacebuilding. Ultimately, however, our aim is to look forward, not back. To do this, we highlight insights that emerge across multiple studies, and put forward recommendations for practitioners and policy-makers to apply in their own work.

The effect of mass media on behaviour

Mass media influences almost all aspects of our life, from the size of our families,[23] our intimate relationships,[24] personal finances,[25] attitudes towards women,[26] or voting choices.[27] Before turning to the effects of mass media on peacebuilding behaviours specifically, we first look at the impact of mass media on a wider set of behaviours where the literature is more extensive. These studies help us to understand the role that mass media can have in shifting attitudes and behaviours in general, as well as providing methodological templates to rigorously assess mass media's impact.

Health and wellbeing

Mass media is an essential element of a public health professional's toolkit. While the conditions under which people are born, live and work are important for their health, around half of the global burden of disease is borne from behavioural and lifestyle factors.[28] Mass media campaigns can be effective in changing population-level health behaviours both by encouraging new healthier behaviours and discouraging unhealthy behaviours.[29]

Amongst other health outcomes, experimental studies demonstrate that mass media can increase uptake of treatments for malaria, diarrhoea and pneumonia,[30] uptake of iron-fortified salt,[31] HIV testing and awareness,[32] and child survival across a range of low- and middle income countries.[33]

The COVID-19 pandemic has brought the behavioural dimension of media-based health campaigns into sharper focus. It is not always positive. A recent study found that Fox News viewership caused reduced compliance with social distancing during the COVID-19 pandemic in the US.[34] However, there has also been rapid innovation in evidence-based public health communications addressing behaviours such as physical distancing, handwashing and self-isolation.[35] [36]
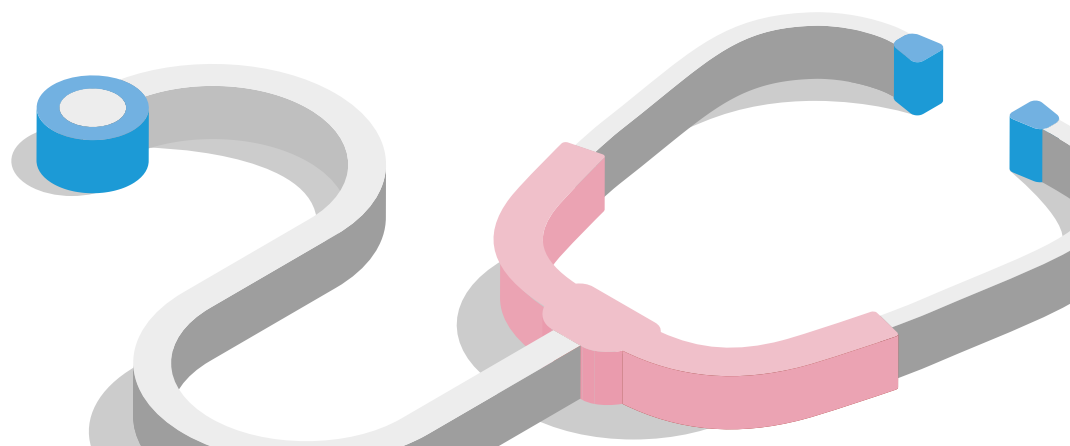
Education and skills

Mass media can improve both adult and children's educational levels and aspirations. One of the earliest and best known examples comes from Peru, where Miguel Sabido pioneered edutainment formats and produced Simplemente Maria ('Simply Maria') in the late 1960s and early 1970s. The show, which follows a hard-working woman training to be a fashion designer, has been credited with a significant increase in adult literacy (and uptake of sewing too).[37] More recently, in late 2020, sales of chessboards skyrocketed following the release of Queen's Gambit on Netflix.[38]

Similar stories abound. In Benin, access to community radio stations increased parental spending in children's education and led to an increase in literacy rates amongst children.[39] In Ethiopia, exposure to short documentaries improved parents' aspirations for their children, leading them to invest more money in their education.[40] And once again in Peru, telenovela-style videos providing information about the financial and social benefits of education have been used in classrooms to successfully reduce school dropout rates.[41]

Criminal justice

Mass media can also shift criminal behaviours, attitudes towards them, and public safety policies.

In Nigeria, for example, a film in which characters reported corruption helped shift social norms around corruption and increased citizens' reporting of it.[42] In Italy, the roll-out of digital TV channels reduced exposure to crime-related news (which was more common on terrestrial TV) and, in turn, decreased concerns about crime.[43] This decreased concern had direct impacts, reducing both votes for the centre-right political party and police expenditure.

In the United States, exposure to Fox News even impacts criminal sentencing decisions.[44] A natural experiment showed that in regions with higher viewership of Fox News, jail sentences are harsher and longer. This effect is stronger for black defendants and individuals sentenced for drug-related crime. Interestingly, elected judges (rather than those who are appointed to their position) are more susceptible to this trend, which suggests wider public sentiment may play a role in these sentencing patterns.

The effect of mass media on peace and conflict behaviours
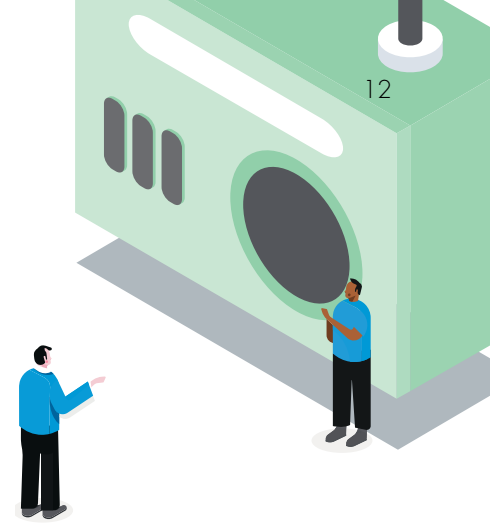
Mass media shapes attitudes towards outgroups

Mass media is a powerful tool in shaping how we see people who we perceive to be different from us. In Rwanda, the *Musekeweya* radio drama focuses on the story of two fictional villages with a history of violence towards each other, and the reconciliation process between them. Throughout the show, a set of educational messages related to conflict and reconciliation are weaved in. Listening to the show helped to build trust towards out-groups and increased the ability of listeners to engage in perspective-taking, by imagining the genocide from the viewpoint of an ethnic group different to their own.[45] These findings are echoed in a study in Burundi, where listeners of a radio show on violence prevention and reconciliation were found to have increased tolerance and trust in outgroup members, alongside improving attitudes related to conflict and violence.[46]

Mass media can instigate violent behaviours and contribute to conflict

Mass-media is effective in shifting attitudes and behaviours, but this can be a double-edged sword. Some of the best-evidenced research in this area shows that exposure to mass media may precipitate extreme violence. In the Rwandan genocide against the Tutsi in 1994, the radio station RTLM broadcast hate messages that shifted perceptions of social norms such that prejudice, extreme violence, and intolerance of Tutsis appeared as the new normal. This, in turn, fuelled the genocide on at a horrific pace and earned RTLM the nickname "Radio Machete". Between April and June 1994, an estimated 800,000 Rwandans, mostly Tutsi, were killed in 100 days.

The causes of the eruption of violence that followed are complex and involve long-standing ethnic tensions. However, radio broadcasts played their part. Using variation in radio coverage across Rwanda researchers found that radio broadcasts had a significant impact on killings in the Rwandan genocide.[47] This was driven by direct effects of the broadcast, which impacted violence in areas of higher radio coverage, and spill over effects experienced in nearby villages.

Mass media can reduce violence

Radio can also be used as part of a broader violence prevention strategy. For example, radio broadcasts have been used in central Africa[48] to encourage defection from the Lord's Resistance Army (LRA), a rebel group that started in northern Uganda but has spread over a wider area. A study using natural variation in radio signals between 2008 and 2015 found that areas exposed to radio messages saw reduced fatalities and violent incidents against civilians.[49] As opposed to providing moral justification for violence reduction, the messaging focused on the importance of safe-surrender and reintegration, and included personal messages from families who wanted their relatives to leave the LRA, and highlighted the economic benefits of defection. However, while these practical messages regarding economic choices increased defection, they also had unintended impacts on other criminal behaviour, with an increased looting of food being found.

Mass media can contribute to peace-building and democratic processes

Participation in civil society is a key part of peacebuilding. Active citizens help directly by reconstructing community buildings and spaces after violent conflict, but also by driving democratic processes that can prevent violence from happening again. Having a healthy media landscape is crucial in achieving these goals.[50]

In India, for example, radio advertisements were used to campaign against vote buying in the run up to the 2014 general election. The adverts emphasised the incentives of politicians who give 'gifts' to voters, and the likely consequences of voting for them. The radio advertisements caused a shift in allegiances equivalent to approximately two million changed votes.[51]

Whilst the above example uses mass media to support democratic processes agnostic of the political party, mass media's influence is more often to endorse a specific candidate. In the United States increased exposure to Fox News has been shown to increase Republican vote shares.[52 53] As Fox News expanded through cable television in the 1990s, the channel increased the Republic vote share in the elections of 1996 and 2000.[54]

Highly politicised broadcasts can create antipathy amongst the opposing group, and stoke divisions. In the aftermath of the Serbo-Croatian war of the 1990s, for example, nationalistic Serbian radio tended to castigate the Croat side. Whilst intended for Serbians, many Croatians also listened to these stations (primarily

for non-political content) where they had access. Doing so stoked anti-Serbian sentiment across Croatians – access to these broadcasts increased the likelihood of Croatians voting for Croat-nationalist parties and increased anti-Serbian graffiti.[55]

Insights from across mass media interventions

Mass media interventions have focused on a wide range of behaviours. Whilst their aims may be different, there are common themes that emerge in terms of what works and how. These themes are the starting point for developing core principles that can be applied across media interventions.

Media changes behaviour through norms, rather than attitudes

It is often assumed that behaviour change comes from changing individuals' underlying beliefs or attitudes. In a peace-building context, for example, we might assume that aggression towards another group depends on their beliefs about that group, or their attitudes towards violence. However, a wealth of studies have shown that changing attitudes is often neither necessary or sufficient for behaviour change.[56] [57] We find that this is true for mass media interventions within peacebuilding too. Instead they are more effective at changing behaviour by changing perceptions of the social environment, such as the expectations and beliefs of others.

For example, a series of Ugandan edutainment videos about domestic violence increased both men and women's' willingness to report incidents, and even reduced women's' actual experiences of violence over the following six months.[58] However, this was not due to a change in attitudes - there was no discernible effect on viewer's attitudes regarding the acceptability of violence against women, their beliefs in the suffering women faced because of it, or their general acceptance of gender equality.

Instead the increased willingness to report seems to be driven by changes in the perceptions of how others would respond. The videos consistently showed reports of domestic violence being handled appropriately, and viewers were more likely to believe the community would intervene following a report, and less likely to believe reporters would face social repercussions for doing so.

Similar effects were found for a Rwandan radio programme that was designed to encourage independent thought and collective problem solving. The radio programme succeeded, in that listeners were more likely to express views that contradicted popular narratives (such as admitting that their communities had low levels of trust), and were more likely to work together to provide for hungry refugees in a hypothetical scenario. However, personal preferences towards interacting with different social groups were unchanged by the radio programme, suggesting that fundamental attitudes towards other groups were unchanged. Instead, the change seems to be driven by changing perceptions of what an individual should do. Listeners were, for example, more likely to feel that "When [they] disagree with something that someone says, [they] should dissent".[59]

In both the above examples, the media intervention changed behaviour (or stated behaviour) without seeming to change core attitudes (attitudes towards other groups, or the ethics of violence against women). Instead, the media portrayals changed perceptions of the social context around the behaviour; what is expected (or what one should do), and how others will react.

Sharing media experiences with others changes its impact

The consumption of mass media doesn't happen in a vacuum. We will often discuss what we have seen or heard with those around us, which can help us to reflect on and process the messages conveyed. In doing so, we can increase the impact of those messages.

In Mexico, for example, a short radio series around violence against women made listeners more likely to sign a petition to create a violence against women support group,[60] but only when people listened to it in a group. When the radio series was played to individuals on its own, it had no effect. This suggests that it was the fact that the show provoked discussions and enabled listeners to learn about each others' beliefs that made it effective, rather than the message of the show on its own.

The presence of fellow listeners and viewers is not universally positive, however. The conversations can undermine as well as reinforce the core messages. A study on an Egyptian TV show, for example, found that while it improved attitudes towards women's ability to run their own business, these effects disappeared when friends also watched the show.[61] It's possible that the conversations prompted by the show highlighted friends' negative views on the topic, undermining the positive norm the show sought to create.

Discussion about a show can, in theory, be had with non-viewers (or listeners), potentially increasing the impact of the show by relating the message to a wider audience. The evidence for this, however, is mixed.
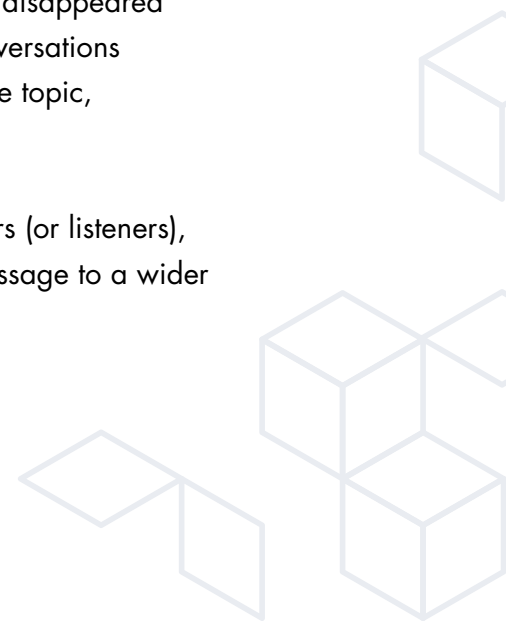
The anti-Tutsi messages used in "Radio Machete" (discussed in

) had negative effects in
areas with radio coverage and in nearby villages, suggesting that the messages
were being spread either directly (through discussion) or indirectly (for example
through shifting norms). However, cutting edge research in Uganda that set-out to
measure such spillovers found that whilst short videos affected audience members'
attitudes in relation to violence against women, teacher absenteeism and abortion
stigma, these attitudes didn't spread in the rest of the community.[62] [63] [64] It is
possible that actions (such as violence towards other groups) spread more readily
than attitudes, which are less visible.

In the above Ugandan study the videos were not easy for viewers to share.
We know, however, that in many cases media content is shared through social
networking platforms, and there is evidence that this encourages the spread of
both the media and its impact. In a recent study short video messages about
COVID-19 were sent to recipients in West Bengal via links in text messages.
Within the video, viewers were asked to forward the video via WhatsApp. As
well as increasing health reporting behaviours of SMS recipients, there were
positive community spill overs to those who weren't originally sent the message,[65]
suggesting potential 'viral' spread of the message.

Media doesn't need to be long to be effective

In the age of social media attention spans cannot be relied on, and short duration content is increasingly viewed and shared around the world. While many of the examples presented so far have used long-form mass media, such as radio and television series, this is not necessary for a mass media intervention to be effective.

For example, two separate studies have shown that videos as short as 2-3 minutes can reduce Islamophobia and anti-Muslim sentiment. In one study, non-Muslim Americans were shown two-minute videos highlighting the hypocrisy of blaming Muslims as a group for the actions of individual Islamic terrorists. Viewers were subsequently less likely to attribute blame for the Paris terrorist attacks to either "Muslims in general" or "French Muslims".[67] In the other study, a similar audience watched 2-3 minute news clips portraying Muslims as either violent, neutral or non-violent affected their attitudes and perceptions towards Muslim Americans.[68] The short videos led (in predictable directions) to either an increase or decrease in stated support for military action in Muslim countries, as well as support for civil restrictions against American citizens who are Muslim (such as restrictions on voting).

The effects of short-form media can also persist, at least to the medium-term. In Colombia, short videos showed ex-FARC combatants speaking about their daily lives, common concerns, and desire to reintegrate with Colombian society.[69]

Colombians who saw the videos had more humanizing attitudes towards ex-combatants three-months later, despite no additional exposure to the video.[70] Similarly, Americans who watched a short movie trailer (less than three minutes) about Palestinian nonviolent resistance to Israeli forces improved attitudes towards Palestinians even weeks later, without creating negative attitudes towards Israelis.[71] Those watching the trailer were also significantly more likely to sign a petition urging the American Congress to support the Palestinian move to join the International Criminal Court.

Content must be engaging to be effective

Many of the recommendations above focus on how content can be designed to maximise impact. However, there is no point paying for the development and evaluation of an intervention if no one wants to watch it. When we work with NGOs to design and evaluate media campaigns, we find that entertaining and engaging an audience is often an afterthought. Scant attention is paid to character and plot development, resulting in boring shows that few people watch.

For long-form interventions an engaging plot and characters is a priority, but shorter interventions (see *Media doesn't need to be long to be effective*, above) can be an alternative where attention span is likely to be a problem. Finally, newer forms of media might offer opportunities to increase engagement and impact. For example, an experiment in Pakistan investigated whether a two-and-a-half minute long VR video could be used to increase willingness to use public spaces (finding positive effects) and social cohesion through exposure to diverse social groups (finding mixed effects).[72] Similar research looking at the impact of mobile media content and other content such as video games is also being undertaken,[73] including evidence that even low-tech games can increase resistance to misinformation.[74] The evidence base for both VR and game-based interventions is still in its infancy, but given the novelty of VR and the large audience for video games[75] both offer opportunities for high-engagement interventions.

Approaches to measuring peaceful change

Despite the work presented in the previous section, the evidence base for peacebuilding interventions is still in its infancy - we have a lot left to learn. While we can (and should) inform programmes with what has worked elsewhere, we also know that context matters, so a positive result doesn't guarantee that the idea will work in a different setting.

To understand what works and how we can keep driving change, we need to be evaluating our work in the most rigorous way possible and sharing the lessons learned with fellow practitioners. In this section we outline the core arguments for evaluating peacebuilding interventions, and provide a starting guide for evaluation approaches depending on your organisation's intervention, resources and capabilities.

Why evaluate?

The need for evaluation comes down to two key facts: we don't yet know what works to promote peacebuilding, but getting our approach wrong can backfire.

We don't know what works to promote peacebuilding

There is a dearth of evidence on what works to prevent armed violence and promote peace. When evidence does exist, it is often weak, fragmented and of poor quality. A 2016 review of conflict prevention interventions found that only 6% of the 149 studies under review were of high-quality, and of these, most found that the interventions weren't effective.[76] Furthermore, most studies were qualitative and thus unable to assess the causal impact of interventions.

We should not assume that good ideas will work. Changing behaviour is *hard*, and the majority of social programmes and behavioural change interventions are not effective.[77] Starting with the evidence is crucial for increasing our chance of success, but there are still many unknowns. We need to view truly impactful interventions as the exceptions, and keep searching for them.
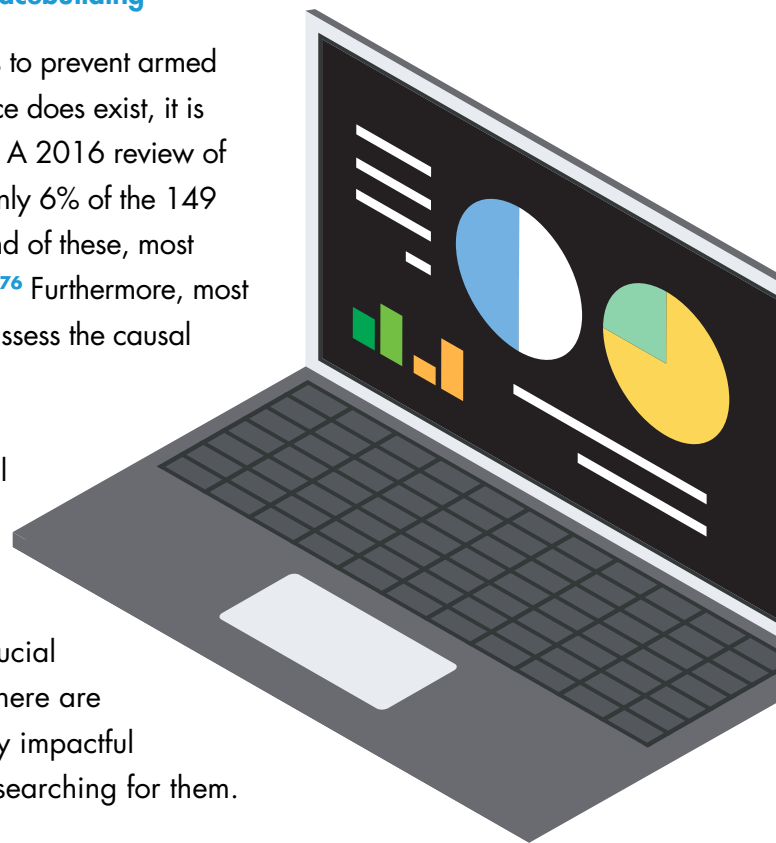
Getting it wrong can make things worse

An ineffective intervention is not the worst case scenario. Even well-intentioned media interventions can be damaging. Take, for example, the *Kumbuka Kesho* soap opera in the Democratic Republic of Congo. The soap aimed to improve social cohesion by emphasizing conflict reduction and integrating a storyline about two young people from different ethnic backgrounds who fall in love. However, at the end of the series listeners were more exclusionary of groups they disliked - they were less likely to want them in their associations, less likely to feel peace could be achieved with these groups in their neighbourhood, and were less likely to donate salt to individuals in need.[78] The negative impacts were even larger in areas where the soap was accompanied by a talk show discussing the soap, its storyline and its characters.

This is not a unique example. An evaluation of a TV show encouraging collective action in the DRC found that while it increased viewers' willingness to take action and their belief in the impact they could have, it reduced their tolerance for diverse opinions and their level of cooperation with those outside their group.[79] An intervention in Vietnam increased political transparency by providing information on political candidates' legislative activities through a popular news platform. However, the (randomly selected) politicians they focused on actually conformed more to regime-supporting behaviours as a result.[80]

Three approaches for better evaluations

Robust evaluations can often seem difficult to conduct, particularly for mass media interventions which are, by their nature, diffuse. However, pragmatic evaluations are possible. The key to a good evaluation is a comparison group that enables you to answer the counterfactual: what would have happened if the media had not been broadcast?

Below we elaborate on three approaches that can be used to evaluate almost any mass media intervention, and provide examples of how they have been implemented in practice.

1. Conduct a randomised controlled trial (RCT)

RCTs, in which individuals (or groups, villages or areas) are randomly allocated to receive an intervention, are widely considered to be the gold standard of impact evaluations. The process of random allocation helps to ensure there are no systematic differences between those that receive the intervention and those that don't (such as propensity to listen to the radio, or initial interest in peace-building) and so we can compare their outcomes and attribute it to the intervention.

Mass media interventions are often seen as difficult to randomise, because it is not always possible to control who views or listens to them. However, the studies included in this report demonstrate several solutions for overcoming this problem:
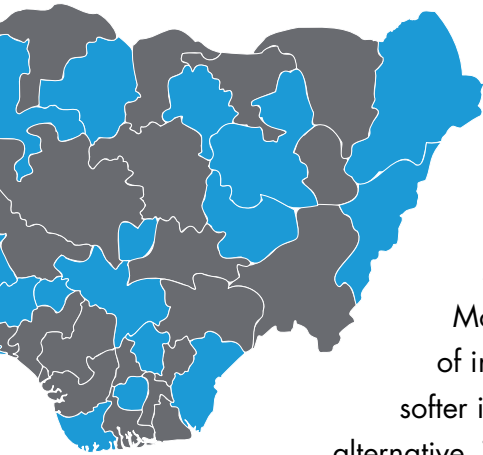
· Randomising by area. Places where TV or radio stations cover a relatively small geographical area make it (relatively) easy to control who can and cannot access the media. By identifying all the different broadcast areas and randomising which ones your intervention will be broadcast in, you can compare outcomes (see next section) across the different areas.

· Incentivising individuals to engage with the content. It is not always necessary that only some individuals have access to the media - it can be enough to make sure some individuals are more likely to engage than others. Most often, this is achieved by paying a random sample of individuals to watch or listen to a programme, although softer incentives such as listening groups (with snacks!) are an alternative. These approaches are known as encouragement designs, and they work best when the baseline engagement with the media is not that high (so that the difference between those that are encouraged and those that are not is greatest).

· Distributing content before a wider roll-out. The above approaches are alternatives to a classic individually randomised trial, but these too are possible. For example, one study in Nigeria distributed different versions of a DVD film to different villages with varying anti-corruption messages, and then compared numbers of corruption reports between these villages[81]. Approaches like this could be used before the wider roll-out of an intervention, or in areas it has not yet been shared.

2. Compare changes in outcomes with a comparison group

While RCTs are the most robust way to evaluate an intervention, you may not always have control over who receives it or where it is rolled out. However, you can still retain the most important aspect of good evaluation - having a clear counterfactual - by comparing outcomes to a comparison group.

Your comparison group should be as similar as possible to the group receiving your media intervention. For example, this might be a neighbouring area to where the intervention is being delivered, or even a specific group that might not receive it (if, for example, mass media is being broadcast in schools, recent school leavers might be a suitable comparison group).

You should expect that, without your intervention, the attitudes and behaviours of this group would change in a similar way to your intervention group. You then need to collect outcomes before and after the intervention for the group receiving your intervention and your comparison group, and compare the *change in outcomes* amongst people receiving the intervention with those that did not receive it. This is called a difference-in-differences approach, and has been used by several of the studies presented in this review.

If your outcome measure is routinely collected (such as police data on assaults) you can conduct this type of evaluation retrospectively, to understand the impact of an intervention that has already been rolled-out. However, if you are relying on new survey measures, you will need to conduct surveys before roll-out in both your intervention and comparison populations.

3. Experiment online

There are times when a robust evaluation "in the wild" is simply not possible or efficient. For example, you may not be able to collect outcome measures at sufficient scale to come up with a confident estimate of impact, or you may want to test small adaptations to an existing programme at very low cost. In these cases, it may be worth considering an online experiment.

Online experiments are similar to a survey, except that participants are exposed to different content before the main questions, to understand how the information affects their responses. For example, participants could be shown one of two videos about a conflict, before questions about their attitudes to one of the groups portrayed in the videos.

Because of the controlled nature of an online experiment, they are often more sensitive than a field trial in a real-world setting and the results do not necessarily reflect the same size of effect you would see in a real-world setting. However, they are a useful
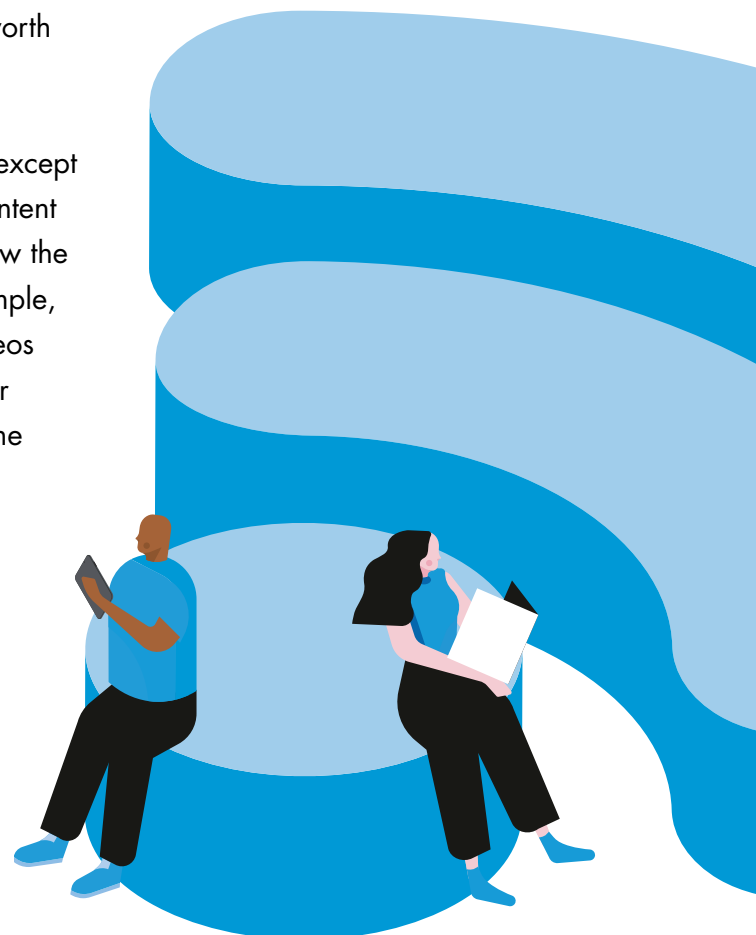
indication of the directional effect - is your intervention improving attitudes and behaviours, having no impact, or backfiring? They are also an excellent way of testing smaller variations than you would be able to detect in a field trial, such as the effect of changing the message at the start and end of a broadcast. BIT's ongoing research using Facebook to recruit participants and test reactions to media content allows inexpensive rapid trials to take place and highlights the potential for testing the impact of mass media before wider broadcast and evaluation in the field.
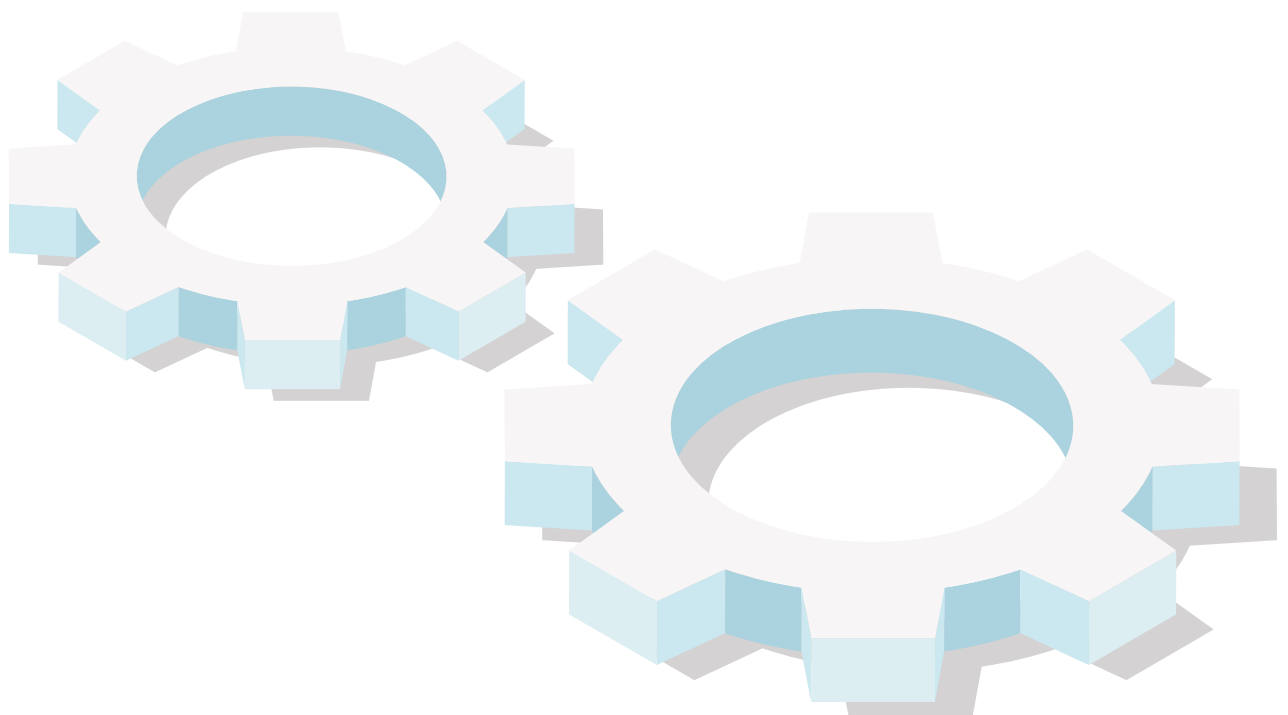
Choosing the right outcome measures

As highlighted in the earlier sections, the relationship between attitudes and behaviour is a complex one. Finding a positive impact on attitudes does not always predict a subsequent effect on behaviour. And, inversely, a lack of impact on attitudinal measures does not always mean no impact on behaviour. Because of this, measuring actual behaviour should be the priority.

Table 1. gives some examples of how this can be done, for a range of different peace building outcomes.

However, when it's not possible to measure behaviour here are four viable alternatives (suggestions for measuring these in a peace-building context are also included in the Table 1.):

1 **Reported behaviours**
These ask individuals how they have behaved in a recent period. While all surveys carry risk of self-report biases (particularly overstating positive behaviours), carefully worded questions focused on objective past behaviours reduce the risk of overstatement.

2 **Behavioural intentions**
These ask individuals how they would behave in a hypothetical situation, and might be useful for rarer occurrences that can't be captured in reported behaviours. They are likely to overstate positive behaviours but, provided there is no reason the intervention would increase the degree of overstatement, should still show whether an intervention has increased the desired behaviour.

3 **Perceived norms**
As noted above, mass media interventions often shift behaviour through norms rather than attitudes. As a result, measuring perceived norms is likely to be a better proxy for behaviour than measuring attitudes. These measures should be used alongside measures of reported and/or intended behaviours.

4 **Stated attitudes**
Stated attitudes do not always predict behaviour, so should not be used as a proxy for expected behaviour change. However, they can be a useful complement to measures of reported and/or intended behaviours, particularly for understanding how an intervention is working.
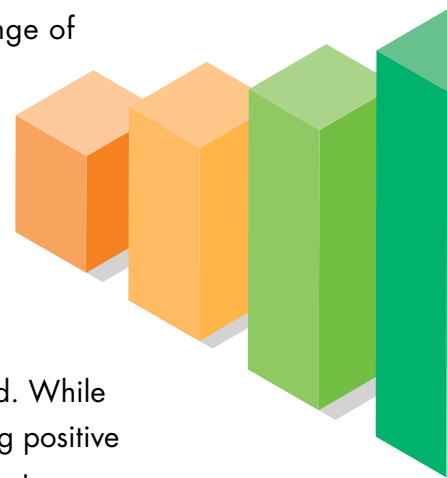
Table 1: Approaches to measuring peace-building outcomes

What we want to measure	How can we measure it	Examples	Type
Support for peace process/ democracy	Voting behaviour for candidates advertised as less corrupt		Actual behaviour
	Voting behaviour for extremist parties		Actual behaviour
	Donation to charity		Actual behaviour
Support for outgroup members	Signing petition to provide political support to outgroup		Actual behaviour
	Donation to charity		Actual behaviour
	To what extent do you support reintegration of ex-combatants from an armed group	Casas, A., Hameiri, B., Kteily, N., & Bruneau, E. (in submission).	Stated attitude
	Positive attitude/association towards political candidates of opposing party		Stated attitude
	Willingness for children to marry outside their own regional, religious, or ethnic group.		Perceived norms
Support for armed groups or military action	To what extent do you support the use of military intervention in another country		Stated attitude
Change in violent behaviour	Increase in defections from armed groups		Actual behaviour
	Violent incidents within region		Actual behaviour
Change in civic engagement	Pro-census sticker wearing and taking of information packets		Actual behaviour
	Voter turnout for election of political leaders		Actual behaviour
Acceptance of violent behaviour	Willingness to report incidents of domestic violence		Behavioural intention
	Signing petition for the creation of a support group for victims of violence		Actual behaviour

Conclusions

Violence and conflict can tear communities, countries and even whole continents apart. Often, it is a response to grievances and prejudices that are older than many of the participants and appear deeply entrenched. Yet, there are attempts to heal these divides and reduce violence through mass media; often soap operas, radio shows and social media that we more readily associate with light entertainment.

The purpose of this review was to understand whether these attempts can be successful and, if so, how we can best go about it. The answer, in short, is *yes, but it's complicated*. Below we elaborate on three key findings from the review.

1. Mass media can drive sustained changes in peacebuilding behaviours, if it engages audiences

The examples brought together in this review show the huge potential of mass media to change how individuals relate to one another, whether that's by

, or

.

There is also the potential for real longevity in these impacts. Because mass media lends itself so well to entertainment, it is possible to create interventions that individuals engage with over months, or even years – consistently reinforcing or even evolving the desired behaviours. However, the growth of social media and short-form content still provides space to drive change. Even short videos of just a few minutes can have .

To have any impact, however, . The recommendations from this review can be used to maximise behaviour change, but they do not replace the need for creativity in developing engaging characters and storylines. Whether it is short videos that attract attention on social media or long radio shows that engage audiences week after week, mass media that leads with science rather than storylines will fail to hit the mark, and ultimately lose the audiences it needs to change behaviour.

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2. Changing attitudes is not always necessary, or sufficient, to change behaviour

We found plenty of examples of mass media interventions
. However, this did not always result in changes in behaviour. At the same time, many of the interventions that did shift behaviour had no effect on attitudes. Instead, these effective interventions were
(our perceptions of what other people do, or what is socially acceptable).

From a behavioural science perspective this is not surprising - the effects of norms on behaviour are well evidenced in a host of settings, just as the link between attitudes and behaviour is shown to be imperfect. But it is particularly interesting in the context of mass media and peacebuilding.

Firstly, inter-group attitudes can be particularly difficult to shift,[82] so norms may be a more attainable goal. Secondly, media may be particularly well suited to shifting norms, as it illustrates norms through portrayals of behaviour and often   , which can make us aware of positive norms that we may have underestimated.

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3. There is an urgent need to build the evidence base, in order to develop more effective interventions

We found that mass media can drive positive peacebuilding behaviours, but it can also drive negative ones. Sometimes,   . However, we also found evidence of   even from well-meaning productions.

At the moment, the evidence for what works within peacebuilding mass media approaches is   . There are clear successes, but they are generally based on a single evaluation and we do not yet know how well they will translate into a new context. There are also some insights, such as the role that norms play in effective interventions, that we can infer from across studies. However, there is undoubtedly more to be learned about how mass media works in a peacebuilding context.

All of this points to the urgent need for better evaluation. Mass media is a powerful tool, and we need to make sure it is used effectively. This means evaluating new interventions to quickly spot what could be harmful, and so that we can identify common themes across effective interventions and ensure they are adopted more widely. Mass media is often seen as challenging to evaluate, but we have proposed   that can be used depending on the scale and resources of the project. We have also highlighted what   look like, focusing on measuring behaviours rather than self-reported attitudes.

Mass media is a powerful tool that can shape the behaviour of entire communities, and at least start to repair the fractures that divide them. But it is a tool that we still need to understand much better if we are to use it at scale to deal with one of the world's most pernicious problems. This review is a small step in building that understanding, and we hope it is a starting point for new ideas, new evaluations and, ultimately, new insights.
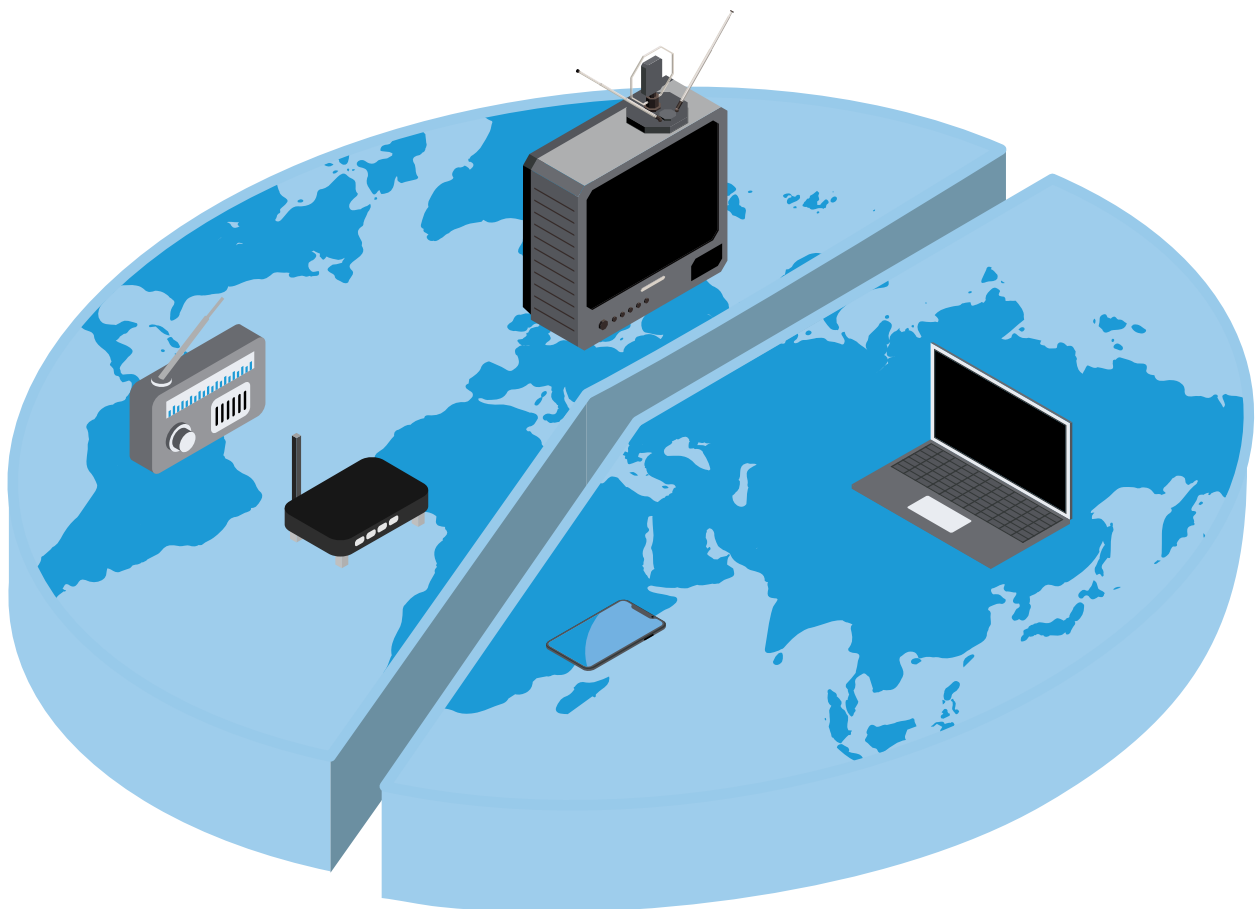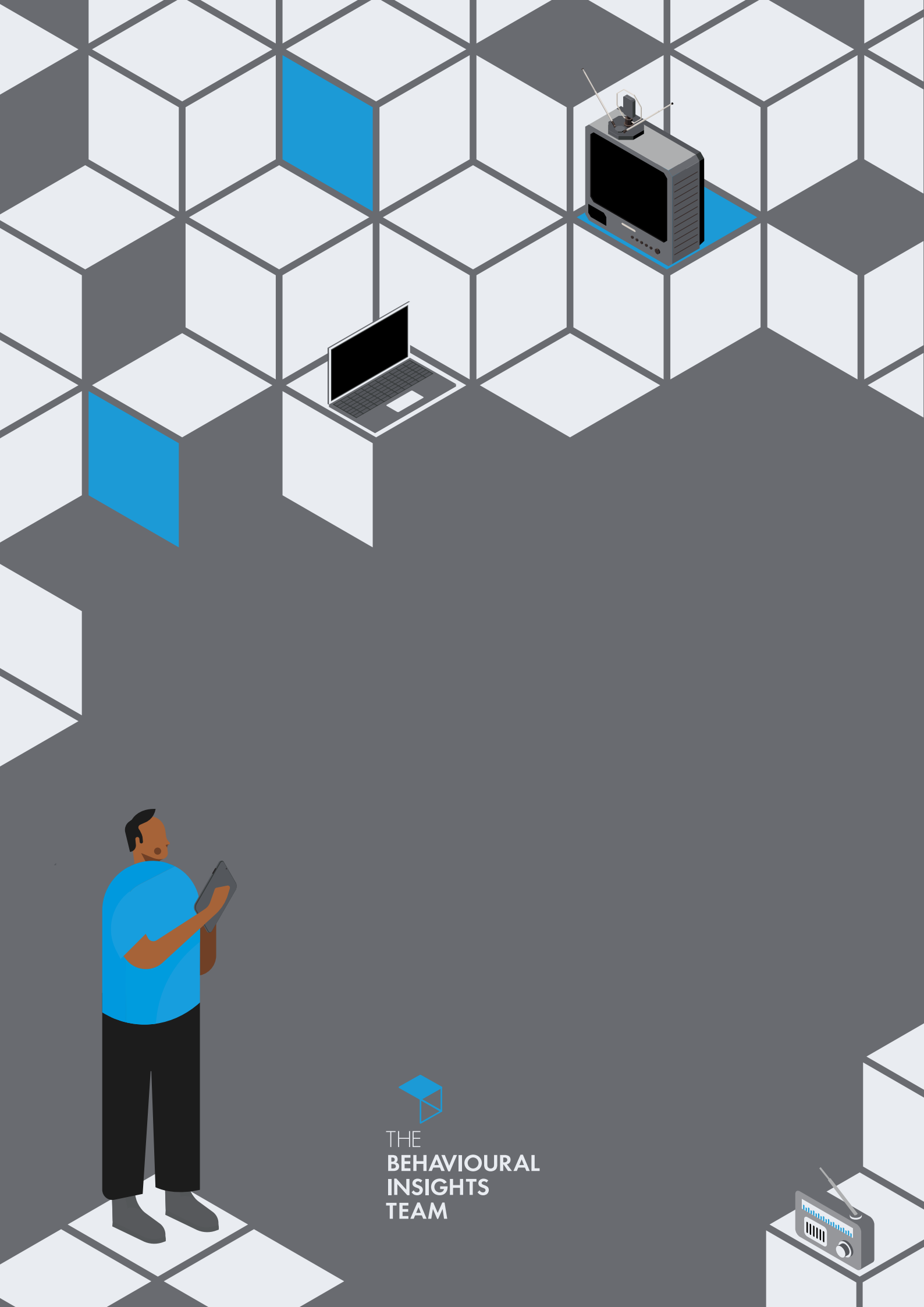
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