

Exploring effective prevention education responses to dangerous online challenges

This report on dangerous challenges was authored by Dr Zoe Hilton (Praesidio Safeguarding) with contributions from Professor Gretchen Brion-Meisels and Dr Richard Graham.

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Executive Summary

In this report we have considered and assessed a wide range of research about dangerous challenges (including hoax challenges) and engaged with a global expert panel to inform our understanding. The report makes recommendations about how we can more effectively deliver prevention education to young people about dangerous challenges.

We know that dangerous challenges can have a devastating impact on individual children and are a source of significant concern for parents and teachers, who often feel uncertain and anxious about how to respond. We have found that there is a need for a better and more nuanced response to preventative and educational approaches that meet the needs of children and young people who may encounter dangerous challenges and may be at risk of participating in them.

We have learned, through reviewing work on the effectiveness of different prevention programmes, that approaches are effective when they are evidence-based, inclusive and meaningful for the children and young people targeted. The survey data that we have available suggests that most challenges are seen by young people as either fun/light-hearted or risky but safe. As such, education prevention strategies built on the premise that all challenges are inherently dangerous will not align with young people's lived experience¹. In this report we find that it is important to acknowledge the spectrum of experiences that online challenges present and respond to the data, which suggests that the support and guidance young people would most welcome is help to identify which ones are too risky. It should also be noted that the survey data suggests that the majority of young people are not participating in challenges of any kind (including even those that are fun and safe) and that only a small minority of those participating in challenges are doing so with ones they consider to be dangerous.

This report recognises that children's rights apply in the digital world as well as in their offline lives, and that children have a right to be safe online, as well as a right to privacy, access, play, and information together with a right to participate in decisions that affect them.² We highlight in this report that children and young people should be involved in shaping and informing effective interventions which are socially inclusive as well as developmentally appropriate in line with their evolving capacities.

Having examined the available data and information in relation to dangerous challenges, we have sought to identify some promising approaches to enhancing prevention education interventions for a range of stakeholders.

¹The Value Engineers (TVE) Global survey which is considered in detail in Part 2 of this report.

²UNCRC General Comment in Relation to Children's Rights in the Digital Environment.

Introduction

Background to the report

This report seeks to examine what is known about dangerous online challenges, bringing together survey data, academic research from relevant fields and insights from our global expert panel. By drawing together the available research and information about dangerous online challenges, as well as broader research on effective prevention responses to a range of other online and offline risks, this report seeks to identify ethical, safe and effective approaches to preventative education that can reduce the risks dangerous challenges may present.

In this report we have benefited from the survey data produced by The Value Engineers (commissioned by TikTok) which has looked at all aspects of teen, parent and teacher engagement with online challenges and hoaxes.

We have also been advised by a number of leading experts and this report includes contributions from Professor Gretchen Brion-Meisels (prevention science) and Dr Richard Graham (developmental psychology). We have also greatly benefited throughout our analysis from the expertise and time of a global expert steering group which included Ximena Díaz Alarcón (Argentina), Professor Amanda Third (Australia), Fabiana Vasconcelos (Brazil), Jutta Croll (Germany), Dr. Maura Manca (Italy), Anne Collier (USA), Diena Haryana (Indonesia), Karl Hopwood (UK), Stephen Balkam (USA), Linh Phuong Nguyen (Vietnam), Daniela Calvillo Anhulo (Mexico), and Dr Najla Alnaqbi (UAE).

Scope of the report

In this report our focus is on dangerous online challenges; those which carry a significant risk of physical, mental or emotional harm. We include within this a subcategory of challenges which we refer to as 'hoax challenges', by which we mean fake suicide/self-harm challenges such as Galindo/Blue Whale and Momo³. Hoax challenges propagate the falsehood that there is a bad actor directing users (usually children) to carry out a series of harmful activities which escalate, ending in self-harm or suicide. These are often reported as a 'challenge'. In reality these 'hoax challenges' are stories that have been constructed to spread and perpetuate fear and anxiety without a genuine element of participation or challenge.

In exploring the phenomenon, we seek to better understand and to enhance our collective response to suicide and self-harm challenges. It is not the intention of this report to minimise the negative impact nor to suggest that hoaxes are the only way in which the issues of suicide and self-harm manifest themselves online.

³Suicide, self-harm challenges or 'hoax challenges' propagate the falsehood that there is a bad actor directing users (usually children) to carry out a series of harmful activities which escalate ending in self-harm or suicide. The identity of the bad actor is always hidden. Sometimes, as with Blue Whale, it is claimed that blackmail threats are used to force children/young people to act against their will in a so-called suicide game with 50 tasks that culminate in suicide. More recently, as with Momo and Jonathan Galindo, the identity of the harmful force is a spectral being with superpowers and the ability to undermine the users' agency through mind control to force them to complete a series of dangerous tasks including self-harm and suicide. In all three cases, these hoax challenges have spread widely.

The current context of work on challenges

At present, our collective understanding of, and response to, dangerous challenges is not well developed and key questions remain open including:

- What's the scale of the problem?
- What drives participation?
- What information and tools do young people need to stay safe (and keep others safe) when they encounter this kind of content?
- Should we be naming and describing specific challenges when talking to children and young people about how to respond?

The content of this report

In *Part 1* of this report, we outline the problem and difficulties presented by dangerous online challenges (including hoax challenges) by reviewing existing academic studies and by speaking to our expert panel.

In *Part 2*, we analyse the findings of The Value Engineers' global survey on challenges and hoaxes and draw out the implications of this for our response.

In *Part 3*, we look at the role that developmental factors play in driving engagement.

In *Part 4*, we take a step back from the specific issues of challenges and look at the existing body of research on effective prevention education and approaches. In this section we identify the kinds of interventions that are likely to be effective.

In *Part 5*, we again consider the insights from our expert panel to explore the prevention education approaches they believe are effective on the ground when tackling these issues and explore a range of ways we might improve our response.

In *Part 6*, we draw together all of the strands from this report to offer ideas for future approaches to dangerous challenges and options for successful prevention education work.

Part 1 - Understanding and exploring the issue

1.1 Definitions

In this report we use the following definitions:

Challenges

Online challenges involve people recording themselves online doing something that is difficult or risky, which they share to encourage others to repeat it.

Challenges can be fun and safe, but they can also be risky or dangerous, which could lead to physical harm.

Dangerous challenges

This refers to challenges that are dangerous and could result in substantial physical injury or permanent harm.

Hoaxes

Online hoaxes, sometimes known as pranks or scams, are tricks that are created to make someone believe something frightening, but which isn't true.

They can be quite extreme as they are created to cause panic.

Hoax challenges

In this report we refer to 'hoax challenges' meaning a specific subcategory of dangerous challenges where the element of challenge is fake, but they are designed to be frightening and traumatic and thus have a negative impact on mental health. The hoax challenges we consider in this report are ones that include distressing self-harm or suicide narratives such as Momo or Blue Whale.

1.2 Academic studies on dangerous challenges

There are a number of small studies that have looked in detail at particularly dangerous challenges and their impact. These tend to call for more awareness and understanding on the part of parents, schools and health professionals⁴. A number of studies focus on the medical impact and are reported in medical journals.⁵

Some studies have tried to explore the meaning of challenges from the point of view of children and young people, and have linked the engagement in risky challenges to normal developmental drivers to seek social status⁶ and to gain affirmation from peers as well as approval from a wider audience. The studies explore how these influences can be exacerbated and amplified by the impact of the online

⁴Summarising the importance of being aware and intervening in a non-judgmental way, see Sabrina, S. (2019) 'What's the appeal of online challenges to teens?', The Ohio State University: Wexner Medical Center, Sept 17th 2019. Other examples of calls for greater awareness include Gupta, A. (2018) 'The problem with extreme social media challenges', Medpage Sept 6th 2018.

⁵Deklotz, C.M. & Krakowski, A.C. (2013) 'The Eraser Challenge Among School-Age Children'. *Journal of Clinical and Aesthetic Dermatology*, (2013) 6, no. 12. See also Grant-Alferi, A., Schaechter, J. & Lipshultz, S.E. (2013) 'Ingesting and Aspirating Dry Cinnamon by Children and Adolescents: The "Cinnamon Challenge'. *Pediatrics*, (2013) 131, no. 5

⁶Murphy, R. (2019) 'The rationality of literal Tide Pod consumption', *Journal of Bioeconomics*, (2019) 21

environment.⁷

Existing studies acknowledge that there is a broad spectrum of challenges which vary widely in their level of risk but generally identify that engagement in challenges is a common youth practice linked to peer pressure and affirmation-seeking rather than being linked to psychological or mental health issues or difficulties.⁸ One study looked at three very different types of viral challenges (Blue Whale, Tide Pod, and Ice Bucket). We would characterise Blue Whale as a ‘hoax challenge’ described above, Tide Pod is a dangerous challenge which involves eating washing detergent pods which can cause significant harm/injury, whereas the ice bucket challenge is a very low risk and amusing challenge to raise awareness for amyotrophic lateral sclerosis. This study raised the issue that the level and nature of online engagement with challenge material across the board (including the riskier ones) can normalise the behaviour and create the misperception that it is more prevalent than it is.⁹

Foundation T.I.M. conducted a piece of research involving an extended focus group with young people aged 13-18. The group were familiar with many online challenges, distinguishing them based on their impact and danger level. The group discussed a range of challenges including ones that are ‘innocent and harmless’ such as the bottle flip challenge and ones that ‘start out innocently but which can end up dangerously’ such as the cinnamon challenge¹⁰. They also discussed ‘challenges’ that appear disturbing and dangerous from the start such as Momo (although this turned out to be a hoax challenge). The group of young people explained their motivations for participation as:

- Tension/sensation – the risky element of a challenge makes it attractive.
- Curiosity – trying out something new.
- Strengthening friendships – sharing your participation with friends and thereby feeling a sense of “belonging”.
- Increasing their popularity – getting attention from others, in the form of views, likes and followers on social media.

The study points out that challenges can be highly accessible due to the fact that you generally do not need specialist skills and equipment to perform them, and that watching others perform the challenge without being harmed may mean that young people underestimate the risks that some challenges present.¹¹

1.3 Views and experiences from the global expert panel

For this report we consulted a global expert panel to understand their views on and experiences of dangerous online challenges. The panel felt that for those children who do participate in dangerous challenges, there can be a mix of causal factors. These can be complex, and are associated with the

⁷Chu, V., Begaj, A. & Patel, L.(2018) ‘Burns challenges – A social media dictated phenomena in the younger generation’. Burns Open, 2 (2018)

⁸Op. cit. Chu, et al.. ‘Burns challenges’ and Sykes, S.,‘What’s the appeal...?’

⁹Khasawneh et al.,(2021) ‘An Investigation of the Portrayal of Social Media Challenges on YouTube and Twitter’. ACM Transactions on Social Computing, (2021) 4, no. 1

¹⁰This is a challenge where the participant consumes a mouthful of cinnamon without drinking anything. This can cause coughing, choking, gagging and potentially lung damage if the cinnamon is inhaled. See also https://en.wikipedia.org/wiki/Cinnamon_challenge

¹¹This is a challenge where the participant consumes a mouthful of cinnamon without drinking anything. This can cause coughing, choking, gagging and potentially lung damage if the cinnamon is inhaled. See also https://en.wikipedia.org/wiki/Cinnamon_challenge

social and cultural context, mental health, family support and friendship groups. The panel identified that children and young people from more deprived and excluded groups are more at risk but that other factors are also in play, including individual resilience, level of access to support and capacity for critical thinking, as well as some young people's need and desire for excitement, affirmation and inclusion at particular moments.

Vulnerability to and motivations for engaging in risky challenges

Although respondents felt there was a mix of motivations and underlying factors that drove engagement in dangerous challenges, they all agreed that developmental proclivities were important. Experts described children they had worked with wanting to show who they are, feel and test their emotions as well as the edges and limits of their physical experience. There was acknowledgement of the thrill, adrenaline and dopamine rush associated with challenges. Experts spoke about the need to replace a dangerous challenge experience with an alternative or fun challenge that provides the excitement but which is less risky and/or has a supervision element.

A further key factor in children and young people's motivation was considered to be the impact of peer influence and the desire to impress friends or to respond to pressure to take part and to join in with others in a social group. The desire to gain approval and be popular and the association of challenges with popular kids means that challenges may be performed to achieve or increase social status. The glamourisation of dangerous challenges through their association with behaviours of humour, bravery and risk-taking all contribute to the appeal these can have.

The panel stated that the children they worked with who are from more vulnerable groups offline tended to be more vulnerable online and felt that offline vulnerability was also an important factor in participation in dangerous challenges. Research suggests that whilst vulnerable and excluded children and young people are more at risk online,^{12 13} they are also more reliant on the online world for positive connections and escape.¹⁴ The panel highlighted that the key concern for many children globally was one of access - whether they could afford to go online and for how long. There was a view that more vulnerable (and digitally excluded children) are more anxious to achieve inclusion, acceptance and affirmation when they are online - leading to a greater propensity to engage or participate in dangerous challenges.

Understanding hoax challenges and their impact

In terms of understanding engagement in hoax challenges, the panel made a distinction between the small group of potentially vulnerable children and young people for whom hoax challenges may reduce barriers to engaging in self-harming ideation or behaviours - and the much larger group of those who may be impacted by being exposed to a distressing and scary idea.

The panel confirmed that in their experience there was confusion and misunderstanding on the part of parents about hoax challenges, which was leading to harmful strategies such as sharing unsubstan-

¹²El Asam, A. & Katz, A. (2018) 'Vulnerable Young People and Their Experience of Online Risks', Human-Computer Interaction, February 2018, Taylor & Francis

¹³Mitchell, K.J., Ybarra, M., & Finkelhor, D. (2007) 'The Relative Importance Online Victimization in Understanding Depression, Delinquency and Substance Use' Child Maltreatment 2007 Vol 12 no. 4.

¹⁴Katz, A., & El Asam, A. 'Refuge and Risk: Life Online for Vulnerable People' Internet Matters

tiated warnings and drawing hoax challenges to the attention of their children and thus increasing the potential for their exposure. There was also the risk of overly blunt, short-term approaches such as removing or banning children from their devices.

In terms of the impact of hoaxes, the panel were concerned about the psychological vulnerability of children who might already be vulnerable to self-harm, e.g., those in a low emotional state or who are dealing with intense negative emotions, becoming preoccupied or fascinated by the idea of being controlled. The panel raised the issue that there is also the risk of bad actors using the anxiety created by hoax challenges to manipulate, control and exploit children and young people online.

One close analysis of Blue Whale by one of our expert panel found that it is difficult to get to the bottom of the motivation for inception, the reasons for onward sharing, and the level of impact and harm in relation to what occurred – especially from cultures and countries far from a hoax's origin.¹⁵ In some respects this may be key to the distress that hoax challenges cause, as they appear designed to be difficult to understand, process or refute and therefore leave the user in a state of confusion and uncertainty. In the case of Blue Whale, despite an arrest linked to a suicide game in Russia and numerous media reports about this, no link between child suicides and the Blue Whale game has ever been established definitively.¹⁶ ¹⁷The investigations by the Bulgarian Safer Internet Centre suggest that motivations for onward sharing may include those curious and trying to find out more, and those wanting to use the virality of the hashtags to sell products, grow audiences/attention or disseminate content.

Case study - A review of media attention given to hoax challenges in the UK

In 2019, a UK charity, South West Grid for Learning, published research by Andy Phippen, Professor of Social Responsibility in IT, University of Plymouth and Emma Bond, Professor of Socio-Technical Research, University of Suffolk on the impact of media and public attention given to hoax challenges in the UK. The research explores the unintended negative consequences of public and media attention in relation to Momo and Blue Whale (described as 'digital ghost stories') and argues that the collective media and professional responses served to increase the exposure of children and young people to disturbing content.¹⁸

The authors show that the sharing of information about Momo and Blue Whale by 'responsible authorities' caused a spike of interest among children and young people. The authors trace this by looking at the statistics on searches in schools from a commonly used internet filtering company showing that these searches (which they assess to be mainly performed by children) peaked in a way that mirrored the media coverage and public comment.

¹⁵Collier, A. <https://www.netfamilynews.org/blue-whale-2-months-later-real-concern>

¹⁶See Collier, A. for research and exploration of Blue Whale at <https://www.netfamilynews.org/blue-whale-2-months-later-real-concern>, see also <https://www.netfamilynews.org/blue-whale-game-fake-news-teens-spread-internationally> and comments that are cited from the investigation by the Bulgarian Safer Internet Centre <https://balkaninsight.com/2017/02/22/experts-warn-against-rumours-for-spread-of-suicide-game-in-bulgaria-02-21-2017/>

¹⁷For a useful overview by the BBC see <https://www.bbc.co.uk/news/blogs-trending-46505722>

¹⁸Phippen, A. & Bond, E. (2019) 'Digital Ghost Stories, Impacts, Risks and Reasons'. <https://swgfl.org.uk/assets/documents/digital-ghost-stories-impact-risks-and-reasons-1.pdf>

The authors argue that the unhelpful coverage generated fear, anxiety and distress which then drove further onward sharing and unnecessary levels of exposure to the content for vulnerable children. The authors call for a more critical examination and interrogation of potential hoax content arguing:

For future events, agencies and organisations might adopt a risk assessment before issuing warnings assessing the (positive and negative) consequences of their actions following an assessment of the risk of harm and validity of the threat. It is crucial that sources are checked, and authenticity established ahead of a rush to generate social media presence which can then potentially snowball and “awareness” of a false threat may occur, with potentially harmful consequences for the young people we purport to protect.

The authors of the piece call for a broader media literacy strategy around all forms of upsetting content and link this to the lessons learned in suicide prevention on media reporting. This is explored further in Part 4.

Part 2 - Analysis and insights from TVE's global survey

2.1 Background and context of the survey

The Value Engineers (TVE) is a brand consultancy firm. For this project, TVE was commissioned due to its expertise in carrying out rigorous quantitative research at a global level. TVE's research consisted of an online survey completed by 5,400 teens (including 1,800 13-15 year-olds, 1,800 16-17 year-olds and 1,800 18-19 year-olds). The survey was also completed by 4,500 parents of teens and 1,000 educators giving a total sample size of 10,900 people worldwide.

The sample was drawn from the UK, the US, Germany, Australia, Italy, Brazil, Mexico, Indonesia, Vietnam and Argentina. The sample was recruited online by a research agency that conducts online surveys.

TVE's research uses the definitions in 1.1 to describe 'challenges' and 'hoaxes' and these are the focus of the survey questions. Respondents were asked about awareness, and engagement in online challenges generally and not specifically about dangerous challenges. Some questions asked respondents to give a view on risk.

2.2 Online challenges

Awareness of Online Challenges



Awareness:

Across the data gathered, awareness of online challenges is high across teens, parents and teachers with 73% of teens and parents and 77% of teachers saying they were aware of online challenges. Social media plays the most critical role in fuelling awareness of online challenges with 83% of teens exposed via social media alongside 68% of parents and 76% of teachers. Traditional media is also fuelling awareness especially for parents and teachers (59% and 52% respectively) who have also become aware of online challenges from the mainstream media.

The data demonstrates a relatively high level of exposure for all groups and suggests that children and young people are likely to come across online challenges (of all kinds) in their day-to-day online lives.

Risk assessment

When asked to think about a recent challenge and assess it, respondents described the challenges they had recently seen in the following proportions: fun/light-hearted (48%), risky but safe (32%), risky and dangerous (14%), really dangerous (3%). The most common methods used by teens to assess risk were to watch videos of people trying it, view comments and speak to friends about it. The statistics show that while most challenges encountered are not perceived to be harmful - a minority of them are identified as dangerous.

The survey found that teenagers would appreciate help evaluating the risk presented by the challenges they come across. 46% of all teens surveyed chose 'getting good information on risks more widely and information on what it is to go too far' one of their top three preventative strategies. It was an interesting and perhaps somewhat surprising finding from the survey that teens would welcome opportunities to learn more about risks. Getting good information on risks was ranked as a top preventative strategy by 43% of parents, and 42% of teachers too.

The fact that the data suggests that teens would appreciate more information to assess risks is important for our responses. It suggests the need to do more to help young people attracted by challenges by providing a greater range of information and tools to enable them to understand, consider and think through risks. The current approaches adolescents are using to assess the risk of online challenges (e.g. watching videos and asking friends) may reflect a gap in terms of useful and reliable information on and offline.

Participation

Overall, the consolidated data show that most children are not themselves participating in challenges, with only 21% of teens participating in an online challenge (of any type) whether choosing to post it or not. The actual participation rates for dangerous challenges are much lower, suggesting that while 21% of children are participating in challenges, only 2% of teens have taken part in a challenge they consider to be risky and dangerous and only 0.3% have taken part in a challenge they have categorised as really dangerous.

¹⁹Engagement rates are somewhat higher than participation (with 31% of teens commenting on a photo or video of someone else taking part)

The numbers of those participating (and posting a video of themselves doing so) also declines significantly with age. The reduction in participation between the younger group and the older group may in part be developmental, with the younger age group associated with a greater need for peer approval and social validation, less developed critical thinking skills and a greater propensity to take risks - making them more likely to participate. ²⁰

The impact of taking part - Online challenges

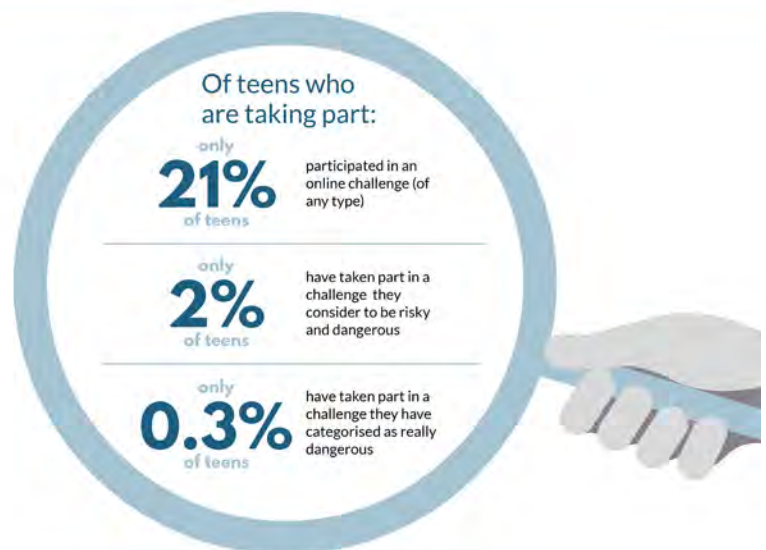
Adolescents who indicated that they had participated in online challenges were asked what they thought about the impact of taking part.

Impact:

54%
of teens thought that the impact of taking part in an online challenge was mostly neutral

34%
of teens felt it had a positive impact

11%
of teens felt it had a negative impact



Positive impact on relationships:

of those who felt that taking part had a positive impact

64%
of teens said this positivity impacted their friendships and relationships

Numbers of those participating (and posting a video themselves doing so) also reduces significantly with age:

14%
of 13-15 year-olds were participating in challenges which they then shared online

while only **9%**
of 18-19 year-olds were doing so

Motivations

In order to understand why teens take part in challenges (of any type), survey respondents were asked to rank a range of possible reasons why they thought teens may participate. The attitudes data shows that the most common reason that teens felt that people took part in challenges was to obtain views, comments and likes, with 50% of teens including this as one of their top three reasons and 22% as their top ranked reason. 46% of teens included impressing others as one of their three main

²⁰The data found that 14% of 13-15 year-olds were participating in challenges which they then shared online while only 9% of 18-19 year-olds were doing so. There is also a significant reduction in the likelihood of sharing, with 21% of 13-15s saying they have shared a video of people they don't know taking part, compared with 11% of 18-19s saying they have done so. This change is significant to a level of 95%. Where differences are noted in this report between age groups or between parents, teens and teachers, the differences are statistically significant in the data to a level of 95%.

Awareness and impact of Internet Hoaxes

Awareness of hoaxes is high:

81%
of teens

84%
of teachers

81%
of parents

are aware



77%
of teens

77%
of teachers



74%
of parents

became aware of hoaxes through social media



56%
of teens

64%
of teachers

68%
of parents

became aware of hoaxes via mainstream media



Impact of hoaxes is more negative:

17%
of teens

said that exposure to hoaxes had a positive impact

51%
of teens

believed it had no impact

31%
of teens

believed it had a negative impact

of those who had experienced a negative impact from hoaxes, 63% of all teens said it impacted their mental health

reasons.

This data suggests that social currency and impressing others are perceived as core motivating factors for all teens for participation and engagement. This implies that any effective safety or prevention strategy needs to address this desire for attention and acceptance from friends or others. Effective strategies may need to recognise that this is a real pressure, whilst helping children and young people to analyse and assess the level of risks that challenges may present, distinguishing fun from something dangerous. There may be value in offering alternative routes to this kind of participation and social acceptance which would ideally include offline and online strategies. Some online alternatives might include producing or promoting other kinds of online content which could be fun, socially positive, humorous, interesting or meaningful.

The impact of taking part

Adolescents who indicated that they had participated in online challenges were asked what they thought about the impact of taking part. The survey suggests that they believed that the effect of taking part was mostly neutral (54% of all teens), whilst 34% felt it had a positive impact and 11% felt it had a negative impact. This outcome was across challenges of all types. Of those who had felt taking part had had a positive impact, 64% said this impact was on their friendships and relationships. This and the fact that teens categorised the majority of challenges as fun/light-hearted or risky but safe, is significant for responses; education prevention strategies built on the premise that all challenges are inherently dangerous will not align with young people's lived experience. It is important to acknowl-

edge the spectrum of experiences that online challenges present and respond to young people's appetite for guidance and support to help them identify which ones are too risky.

Support and advice

The data shows that 66% of all teens have sought support and advice in relation to online challenges. When seeking support and advice about a challenge, teens appear to be more likely to go to a family



member or friend than use the online environment.

In terms of providing support, the data shows that both parents (34%) and teachers (29%) think it's difficult to talk about challenges without prompting interest in them and 40% of parents and 31% of teachers say they would not name a challenge unless a teen has first. This demonstrates a significant gap around the topic that needs addressing with clearer and more specific guidance about when it is appropriate to name and discuss challenges and how to do so in practice. Interestingly only 48% of the teachers asked felt that schools were dealing well with challenges.

2.3 Hoaxes

Awareness

The data shows that the awareness of hoaxes is high at 81% of all teens consulted, 81% of parents and 84% of teachers. Awareness of hoaxes is most likely to derive from social media with 77% of teens, 74% of parents and 77% of teachers becoming aware of hoaxes through social media. Awareness of hoaxes through mainstream media is lower for teens but higher for parents and teachers (56% of teens, 68% of parents and 64% of teachers had become aware of hoaxes via mainstream media).²¹

²¹Across most topics the data points were relatively consistent across different countries where data was collected. One interesting difference between countries was that the levels of awareness of hoaxes appear to be much lower in Germany than in the other countries where participants were surveyed. Awareness of hoaxes for teens in Germany is 42% vs. an average of 86% across other countries. This difference is discussed in section 5.3.

Engagement and sharing

In relation to engaging with hoaxes - the most common response from teens to being made aware of online hoaxes was to seek more information online and 54% of teens said that they did this. 28% of teens who were aware of hoaxes had shared a warning as a direct message and 25% of teens had commented on an article or post about a hoax. Only 22% of teens (consistent across age groups) agreed with the statement that sharing a hoax is harmful. It appears that this is at least partly due to a belief that sharing is regarded as protective and helpful to others. Similarly, most parents do not seem to regard sharing as risky or problematic, with only 19% saying that they consider sharing a hoax to be harmful.

Risk Assessment

Participants were asked about how they had judged whether a recent hoax they had come across was genuine or fake. The most common strategy was to seek more information, with 61% of teens agreeing that they searched for more information online to judge whether a hoax was true or not. In addition to this, 57% of teens looked at comments and 44% of teens spoke to their friends about it to help them assess if a hoax was real or not. This suggests that the confusion and uncertainty created by hoaxes may drive a search to try to determine authenticity.

In terms of how young people assess hoaxes, only 31% of teens agreed that a recent hoax they had seen was 'clearly fake/ unbelievable' (37% of parents and 30% of teachers). 35% of teens agreed that a recent hoax had 'made me worried and I had to double check it wasn't true' (33% of parents and 34% of teachers). 27% of teens believed that a recent hoax they had seen was 'believable and might fool someone' (22% of parents and 27% of teachers) and 3% of teens believed the hoax was 100% real (4% of parents and 6% of teachers). This data reflects the continued confusion and uncertainty around hoaxes. It is understandable, as creating this anxiety and doubt is inherent to a hoax's design and purpose - and even after further research young people (as well as parents and teachers) may be left with doubts and concerns that remain unresolved. It suggests that better public information is needed to explain what we know about why hoaxes are created, how they are designed to cause anxiety and fear and the benefit of reducing their impact by not engaging with them.

Motivations

Participants of the survey were asked why they think people share or repost online hoaxes and were asked to rank a range of potential motivations. Receiving attention from others (views/likes/comments) was most commonly ranked by teens as one of the top three reasons (62% of all teens), and 'because they don't realise it's fake' was also ranked as one of the three main reasons by 60% of all teens. These motivations are clearly linked to the fact that only a minority see hoaxes as very clearly fake and low numbers of teens or parents believe that onward sharing is harmful. In fact (as considered above), many seem to believe there is a protective value in sharing (37% of teens ranked 'to protect others' in their top three reasons). This again suggests the need for greater information and guidance about how hoaxes are designed to cause harm and the impact that onward sharing has on others, across teen, parent and teacher audiences. It would be helpful to increase the capability of

all audiences to assess the validity of content of this kind with as critical and sceptical an outlook as possible.

Impact

Significant numbers reported the negative impact of exposure to hoaxes.

For all teens exposed to hoaxes, 17% agreed that exposure to hoaxes had a positive impact, 51% believed it had no impact and 31% believed it had had a negative impact (consistent across age groups). Of those who had experienced a negative impact from hoaxes, 63% felt that the negative impact was on their mental health.

This level of impact is striking and suggests the need for easily identifiable and accessible support for teens.

Support and advice

In line with the above findings on impact, the data shows that 46% of all teens exposed to hoaxes have sought support and advice. 53% of teens who wanted support on hoaxes sought support from friends, 50% from a family member, 47% looked for advice online, and 41% asked for advice from a teacher or school staff member. It is notable that over half of teens exposed to hoaxes have not sought any support and advice, perhaps suggesting as above, that young people may benefit from more visible and accessible, youth-friendly information and resources that help young people process and make sense of hoax material.

The data shows that parents are cautious about how they approach discussing hoaxes with their children. 56% of parents agreed that they would not mention a specific hoax unless a teen had mentioned it first. In addition, 43% of parents felt that the advice available on online hoaxes is not as good as that available on offline risks and 37% of parents believed hoaxes are difficult to talk about without prompting interest in them. This indicates a significant gap in support for parents as they do not appear to have access to advice or information that enables them to make sense of hoaxes or to talk about them with their children.

The data on teachers suggest a high level of concern, with 56% indicating that they are extremely or very concerned about hoaxes and 88% agreeing that 'knowing about online hoaxes is an important part of my job'. However, 50% felt that schools do not have the knowledge and resources to deal with hoaxes effectively and only 33% agreed that schools provide helpful tools and guidance on hoaxes for children and families.

A further issue raised by this data is the lack of certainty on who is responsible for tackling online challenges and hoaxes. There is no clear consensus on precisely where roles and responsibilities lie and who is best equipped to assume them. For example, while there was agreement that parents have responsibility for educating children about hoaxes, many parents feel ill equipped and unsure how to do so. It appears likely that a combined approach in which we enable teachers, parents as well as peers to offer the right kinds of information, advice and support may be the most effective response. This is something that we explore further in Parts 4 and 5 of this report.

Part 3 - The role challenges play in adolescent development

During this project we worked with Dr Richard Graham who is a Consultant Child & Adolescent Psychiatrist, and a former Clinical Director at the Tavistock Clinic. Dr Graham's work helped us to explore in more depth the potential drivers to participation in challenges for teenagers and he has written the following section.

In order to develop effective approaches to reduce potential harms in any situation, and in any community, it is important to understand how human development may be influencing behaviours. This becomes even more important when considering how online challenges intersect with the 'transformations of puberty' and its psychological response, 'adolescence'. This complex phase of development is almost unique in nature, with only chimpanzees also progressing to their mature adult selves through the changes of puberty. Understanding this phase of development, both in terms of physical growth and changes, and the psychological adjustments to those changes, can help us to empathise with the strivings of teens, and suggest more effective ways of supporting their positive development.

During puberty, almost all of the body's organs and systems are revised and advanced in preparation for adulthood. Whilst a recent focus on how brain development during this time may help us understand the adolescent striving to explore and seek new experiences, the young person is also struggling to comprehend their increasing size, strength and physical power, and the ability to conceive or create life. Participation in many activities may involve an exploration of these new-found abilities, and the emerging responsibilities that follow them. If the emotional turbulence of adolescence brings its own challenges, from intense rage to intense desire, those feelings are now housed in a body that can more easily harm itself and others, due to that increased strength. The much-loved stories of Marvel superheroes, and even Frankenstein, make sense to adolescents, given their struggles to manage both emotions and increased physical powers.

Yet if adapting to physical changes poses a new set of challenges to the developing young person, the rapid development of the brain brings additional and perhaps greater ones. In healthy development, the limbic system of the brain (which regulates emotion and feelings of reward) undergoes dramatic changes between the ages of 10-12 years. These changes then interact with the pre-frontal cortex of the brain (the judgement centres) to promote novelty seeking behaviour, risk-taking and interactions with peers. In simple terms, this means there is a phase of intense emotion, whilst judgement can appear to be less acute, as those 'judgement centres' of the brain are being revised. Being swept away by feelings, of whatever type, is a normal and healthy phase of adolescence and one that, from an evolutionary perspective, may help a young person become less dependent on their parents or carers, and begin to feel more independent. UNICEF describes early adolescence as a time of rapid learning and brain development, which facilitates increases in sensation-seeking, motivation for social relations and sensitivity to social evaluation; it is thus the time of discovering who you are.

Adolescence is therefore a time of both vulnerability and opportunity. Being supported in taking healthy risks can lead to positive learning opportunities, the taking on of guided responsibilities, so

creating positive spirals of development. Support from trusted adults can be immensely helpful in this process, and often that can be someone outside their family, such as a teacher.

From the inside, the young person is starting to engage with experiences that may, hopefully, help them advance to a happy and healthy adult life, and almost every activity they are engaged with has some purpose and meaning in terms of striving towards a positive future. (Such intense development also necessitates periods of unstructured time, for respite from the pressures of 'growing up'. Therefore time to 'just be', without any pressure to progress anything is also important.) Whilst all of these activities are supportive of a growing and stable sense of their own identity (with much healthy experimentation along the way), the range of activities they are engaged with are often referred to as the 'Tasks of Adolescence'; progressing with each of them is felt to be a good foundation for adult life. Understanding any young person's behaviour in light of the 'Tasks of Adolescence' can often illuminate more meaning and purpose in behaviour than initially perceived.

The 'Tasks of Adolescence' are described in a number of ways, but a comprehensive list from MIT describes them as follows:²²

- Adjust to sexually maturing bodies and feelings
- Develop and apply abstract thinking skills
- Develop and apply new perspective on human relationships
- Develop and apply new coping skills in areas such as decision-making, problem-solving, and conflict-resolution
- Identify meaningful moral standards, values, and belief systems
- Understand and express more complex emotional experiences
- Form friendships that are mutually close and supportive
- Establish key aspects of identity
- Meet the demands of increasingly mature roles and responsibilities
- Renegotiate relationships with adults in parenting roles

Over the course of adolescence, each task may have greater or lesser importance. Therefore, in the context of the 'Tasks of Adolescence' can we start to understand why young people might engage with online challenges and hoaxes?

We might consider that whilst online challenges can seem fun and light hearted for the majority, they also provide opportunities to explore:

- Social validation/ acceptance and belonging
- The quality of friendships/relationships (impress friends and others)
- The opportunity to show courage and determination
- Physical abilities and the limits of the maturing body
- How to demonstrate appealing qualities e.g. sense of humour
- How platforms or algorithms work and how to be successful online

Hoaxes, with perhaps their greater target on psychological maturity, rather than the often-portrayed physical prowess in online challenges, create a different set of opportunities with some common themes. Engaging with hoaxes might suggest a young person is exploring:

- Social validation, acceptance and belonging

²²<https://hr.mit.edu/static/worklife/raising-teens/ten-tasks.html>

- The ability to work out what is fake (cognitive skills)
- How to show that you are supportive, kind, and protective to others (altruism)
- How to demonstrate courage (and show you are not a child who becomes frightened)
- How to demonstrate resilience (coping with and recovery from distressing experiences)
- How to make sense of complex emotional or psychological states (such as feeling suicidal)
- How the internet works (media literacy/ impact of disinformation)

Engaging in hoaxes may be closer to those rites of passage of a young person watching a horror movie or going on a 'death defying' roller coaster, though sadly without the assurance that it has been set up to be safe.

Understanding the purpose and meaning behind any engagement with challenges and hoaxes suggests that simple measures of abstinence and restriction, if attainable, do not meet the needs of the young person to grow and learn from experience. Support in finding healthier and positive alternatives to risky endeavours is critical.

If young people are not supported in that, there are risks of negative trajectories into adult life, not least of which is a belief that you can develop without stretching yourself or taking risks.

The adult world has a keen partner in our attempts to support the healthy development of young people and help them attain better life chances. Though over 60 years old, the psychoanalyst, Anna Freud, wrote movingly of the need for young people to grow from experiences and reminds us all that with any programme or intervention that aims to support young people, we should bear the following in mind:

"I take it that it is normal for an adolescent to behave for a considerable length of time in an inconsistent and unpredictable manner; to fight his impulses and to accept them....to be more idealistic, artistic, generous, and unselfish than he will ever be again..."

Part 4 - Effective approaches to preventative education

The research and theory reviewed above suggest the value of developing strategies that reduce the risk of children and young people engaging with dangerous challenges and hoax challenges but demonstrate that doing this effectively may mean recognising their appeal to young people and giving them more effective tools and support to navigate risk. This section draws upon the existing research on effective risk prevention education and strategies across a range of risky behaviours and distils key learning about effective approaches that we might draw on to respond to dangerous challenges.

4.1 Learning from research about risk prevention education approaches

This report benefits from a strong body of evidence from academic research that explores and evaluates evidence-based reports on prevention and intervention strategies from the field of teen risk taking. A key early review of what works in prevention studies was conducted by Nation et al. in (2003), “What works in prevention: Principles of effective prevention programmes”. This study reviews a range of prevention programmes and identifies nine principles of effective preventative education programmes. The study finds that effective preventative education is comprehensive, incorporates varied teaching methods, provides sufficient dosage, is based in theory, promotes strong relationships, is appropriately timed in terms of pupils’ development, is socio-culturally relevant, includes evaluation of outcomes, and is implemented by well-trained staff.²³

One study of sexual health education programmes found that programmes offering comprehensive and holistic approaches that discuss sexual initiation, numbers of sexual partners, frequency of sexual activity, the use of condoms and contraception, STIs and pregnancy were more effective than health education programmes that are developed to encourage abstinence.²⁴ Equally studies find that programmes that are inclusive of LGBTQ+ young people and which use relevant strategies to connect young people with services, taking on board the different family and social media influences in their lives tended to be found to be more effective.²⁵ The research showed that abstinence-only-until-marriage programmes and policies in the United States were ineffective because they do not delay sexual initiation or reduce sexual risk behaviours. At the same time, the authors argue that they stigmatize, exclude, and reinforce unhelpful gender stereotypes, whilst also withholding important medical information that would enable adolescents to make safe decisions.

In a similar vein, studies looking at the effectiveness of drug prevention programmes have found that educating teens on the negative health outcomes of drugs and giving them information about drug reactions is more effective than telling teens how to think or act - or simply telling them to say no to drugs. This has been shown by a meta-analysis of Project DARE (Drug Abuse Resistance Education),

²³Nation, M. et al, (2003). What works in prevention: principles of effective prevention programmes. *American Psychologist*, 58(6/7), 449-456.

²⁴Santelli, J.S. (2017) “Abstinence-Only-Until-Marriage Programmes An updated position paper of the Society for Adolescent Health and Medicine (2017) *Journal of Adolescent Health* Position Paper, volume 61 Issue 3.

²⁵<https://www.cdc.gov/healthyyouth/whatworks/what-works-sexual-health-education.htm>

a widely used drug prevention programme used in the US.²⁶ A meta-analysis of studies on the effectiveness of this programme found a lack of evidence of effectiveness despite the significant scale, resourcing, and adoption of the programme.

In relation to online safety specifically, Jones et al. 2014 at the University of New Hampshire completed an in-depth exploration of the effectiveness of internet safety programmes.²⁷ The review they completed was highly critical of existing online safety education for some basic failures such as not incorporating proven effective educational strategies from other areas of prevention and finding that internet safety programmes often do not incorporate research-based messages, skills-based learning objectives, opportunities for youth to practice new skills, or sufficient time for learning. They found that programmes commonly use unrealistic scare tactics which exaggerate risk taking (which could backfire with negative social norms) and they also found that campaigns often tend to apply stock safety messages to complex social and emotional behaviours, assuming ignorance in young people - and assuming that telling them not to do something will be effective. The study calls for a re-think of internet safety education messaging and strategies with a greater emphasis on evaluation.

Jones et al. (2014) also sought to identify the components of effective education and prevention programmes, arguing that although there is limited evaluation of internet safety programmes, there is transferable knowledge and information about approaches that work from evidence of effective practice in other prevention areas including longstanding evidence from offline risk prevention²⁸. Jones et al. (2014) reviewed 31 meta-analyses of youth prevention education programmes including programmes on drug abuse, mental health problems, aggression, delinquency, school drop-out, bullying, and sexual abuse and sought to identify the principles of effective prevention programmes from these. Based on their analysis, the authors developed a set of principles - which they call the KEEP principles 'Known Elements of Effective Prevention' checklist. The checklist identifies five basic prevention education characteristics that they found to be critical to effectiveness. These five elements are: 1) a structured curriculum or lessons; 2) skill-based learning objectives; 3) active participant involvement and learning; 4) an adequate programme dose; and 5) additional learning opportunities. As well as the need to improve education strategies, the New Hampshire studies also call for more research-based approaches to online safety messaging. They reflect that messaging should be developed around an evidence base of risks that occur online and be realistic and nuanced. For example, they critique the safety advice they had come across in their review for young people to 'not share personal information' when they are online. They reflect on the challenge of ensuring that these messages are right:

It might be helpful if youth could discriminate between safe versus unsafe and risky contexts when considering whether to give out or post personal information, but we have no research or knowledge base yet to help with such decisions. Generic, broad, or overly conservative messages are likely going to be dismissed by youth as unrealistic or infantilizing.

²⁶West, S.L. & O'Neal, K.K. (2004) Project D.A.R.E. Outcome Effectiveness Revisited. American Journal of Public Health 2004, 94 (6)

²⁷Jones, L.M., Mitchell, K.J. & Walsh, W.A. (2014) 'A Content Analysis of Youth Internet Safety Programmes: Are Effective Prevention Strategies Being Used?' Crimes Against Children Research Centre, University of New Hampshire. See also Jones, L.M., Mitchell, K.J. and Walsh, W.A. (2014) 'A Systematic Review of Effective Youth Prevention Education: Implications for Internet Safety Education.' Crimes Against Children Research Centre, University of New Hampshire.

²⁸This is also evidenced in their recent review 'Youth Internet Safety Education: Aligning Programs With the Evidence Base (unh.edu)' Finkelhor, D., et al, (2020) Trauma, Violence and Abuse

This learning is clearly relevant to how we approach the task of messaging effectively and in an evidence-based way about challenges, and how we advise on the set up, design and development of effective programmes that are not crude or simplistic for young people (e.g. advising them simply to abstain from all challenges). In order to be effective, messages need to be comprehensible and clear to children and young people and seek out and take on board their perspectives and concerns.

The authors also question whether internet safety should be a standalone subject in schools, given that prevention education time is a 'scarce resource' for schools, and because there are common themes around prevention approaches, including refusal skills and resisting pressure, empathy, thinking about long term consequences and mastery of strong emotions. Given this shared social and emotional skills component, they argue that online safety needs to be an integrated part of broader (long standing and better evidenced) safety programmes developed around offline harms. This is a point they advocate for further in their recent updated review arguing for integration due to the 'strong interconnection between online and off-line dangers and dynamics'.²⁹

In their 2016 review, CEOP in partnership with the PSHE Association in the UK, published a report which outlines eleven key principles of effective practice in prevention education.³⁰ These principles are intended to help personal, social, health and economic (PSHE) education professionals to teach high-quality online safety education as part of their broader PSHE programmes. The principles are based on a literature review of research into common elements of successful educational interventions (including much of the in-depth research cited above) and encompassed a review of hundreds of programmes in the UK and internationally.

This 2016 review expands on the KEEP principles developed by Jones et al., (2014) above (and the ones identified by Nation et al., (2003) and identifies 11 principles of effective preventative education that are salient in the research. These included: a whole-school approach including multicomponent interventions; varied teaching styles addressing a range of factors; a developmental programme which is appropriate to pupils' age and maturity; learning which is inclusive of difference and socio-culturally relevant; well-trained teachers; theory/research-based and factual; a positive approach, avoiding 'scare tactics' or confrontational strategies; clear goals and outcomes, and effective monitoring and evaluation; support from school leadership teams and other authorities; community, parent and pupil engagement; and intervention that is of appropriate length or intensity. As above, these principles draw strongly upon previous reviews and analyses of risk prevention studies and offer us a strong and consistent body of evidence about the kinds of approaches that work. One of the shortcomings identified in the CEOP study is the reality that identifying programme elements that are associated with effectiveness does not mean that these elements cause or guarantee a programme will be effective - however identifying effective elements does offer useful evidence on how effective programmes can be built.

Other studies cited in the CEOP piece explore learning methods and strategies in detail. A study by Herbert and Lohrmann (2011) looks at the content and strategies in ten health education programmes which have been evaluated to improve risky behaviours in health.³¹ They identified three

²⁹Finkelhor, D. et al, (2020) Youth Internet Safety Education: Aligning Programs With the Evidence Base (unh.edu)' Trauma, Violence and Abuse (2020)

³⁰Chakravorty, P. (2016) 'Key Principles of Effective Prevention Education', PSHE Association. <https://www.pshe-association.org.uk/curriculum-and-resources/resources/key-principles-effective-prevention-education>

³¹Herbert, P.C. & Lohrmann, D.K. (2011) 'It's all in the delivery! An analysis of instructional strategies from effective health education curricula'. *Journal of School Health*, 81, 258-264

active learning strategies which were evidenced in all ten curricula: role play, group cooperation and small group discussion. They conclude from their review that effective learning strategies allow students to apply learning and knowledge through practice. They call for a need to balance instructional time with the involvement of students in actively learning and practicing skills.

Another useful study by Thomas et al (2015) reviewed 50 randomised control trials into school-based programmes for preventing smoking³². They concluded that more effective programmes included social and emotional competence. These focused on improving cognitive skills such as problem-solving and decision-making, as well as improving social and emotional skills that enable young people to resist interpersonal or media influences and increase their self-control, self-esteem, and ability to cope with stress.

A range of recent studies have explored the impact of peer-led approaches on successful prevention programming and the evidence on this still appears to be emerging with some studies suggesting these are effective and others less conclusive.³³ ³⁴However, recent meta-analyses - for example on HIV prevention - suggest that these can have a promising impact.³⁵

Learning from social norms research

Another area of research with relevance to risk prevention looks at the impact of social norms. Studies on the impact of social norms on bullying suggest that children and young people are heavily impacted by their perception of social norms, and that giving children realistic information about bullying prevalence, e.g. that it is not that common for bullying to occur, reduces bullying because people want to conform.

One study argues that:

*Persistent, widespread harassment in schools can be understood as a product of collective school norms that deem harassment, and behaviour allowing harassment to escalate, as typical and even desirable. Thus, one approach to reducing harassment is to change students' perceptions of these collective norms*³⁶.

The authors find that changing perception of schools' social norms can be used to change (and reduce) harassment behaviour arguing that 'the public behaviours of highly connected and chronically salient actors in a group, called social referents, provide normative cues regarding what is acceptable and desirable for group members.' Another study looking at school bullying found that students substantially misperceived peer norms regarding bullying perpetration and support for pro bullying

³²Thomas, R.E., McLellan, J. & Perera, R. (2015) 'Effectiveness of school based smoking prevention curricula: systematic review and meta analysis'. *BMJ Open* 5 (3)

³³MacArthur, G.J. et al, (2016) 'Peer led interventions to prevent tobacco alcohol and drug use among young people ages 11-21 years a systematic review and meta analysis'. *Addiction* 2016 111 (3).

³⁴King, T. & Fazel, M. (2021) 'Examining the mental health outcomes of school-based peer-led interventions on young people: A scoping review of range and a systematic review of effectiveness.' *PLOS one*

³⁵He, H. et al, (2020) 'Peer education for HIV prevention among High risk groups: a systematic review and meta analysis'. *BMC Infectious Diseases* 20 (338)

³⁶Paluck, E.L., & Shepherd, H. (2012) "The Saliency of Social Referents: A Field Experiment on Collective Norms and Harassment Behavior in a [High] School Social Network," Department of Psychology and Public Affairs, Princeton University.

attitudes.³⁷ “The authors found that following a strategy to communicate the reality of the bullying levels led to significant reductions overall in pro bullying attitudes as well as bullying prevalence.” Recent meta-analyses looking at the impact of social norms on a range of behaviours have also supported the relevance of a social norms-based approach.³⁸ This would suggest that if we were to offer young people realistic information about dangerous challenges (e.g. via TVE’s research) that most children and young people are not in fact engaging or participating in them - this would reduce the risk of engagement for many young people.

This also has implications for education prevention but also on the way dangerous challenges are reported by mainstream media, on social media and by schools and public authorities. Such reports typically omit any sense of scale or indeed imply engagement is ubiquitous when the data that we have available suggest that participation rates are very low. Not only does this (quite understandably) heighten anxiety, but it also risks normalising atypical behaviours.

4.2 Key themes and guidance from prevention science

During this project we have had the opportunity to work with Dr. Gretchen Brion-Meisels, who is a prevention scientist from the Harvard Graduate School of Education. Dr Brion-Meisels’ work helps us to consider multiple theoretical frameworks that underlie the design and implementation of effective prevention programmes. Thinking about the theory helps us step back from the detailed reviews of the correlates of effectiveness and think about, and perhaps better understand, why certain approaches are more likely to be effective and successful in driving change. This expert advice has offered us a way of thinking about how and why behaviour change can happen and offers a set of guidelines about what an effective programme would look like as a result.

The following are three essential questions, shared by Dr Brion-Meisels, in relation to dangerous challenges and hoaxes:

- How do adolescents make decisions about what they think, do, and feel?
- How do settings support them making decisions that are healthy for development?
- How can communities support adolescents to make positive and healthy decisions when they interact with each other online?

Ecological Models of Development

Brion-Meisels explains that the key approach to these questions is rooted in Developmental Science and Prevention Science. Developmental Science helps us understand the processes or mechanisms that mediate the multitude of factors that influence social, emotional, and cognitive development. Similarly, Prevention Science asks us: What does it mean to intervene in development in ways that promote protective factors and reduce risk factors such that they promote wellbeing for young people? These two fields sit at the intersection of education and public health.

³⁷Wesley Perkins, H., Craig, D.W., & Perkins, J.M. (2021) “Using social norms to reduce bullying: A research intervention among adolescents in five middle schools.”

³⁸Paulius, Y. et al, (2019) “Using Social Norms to Change Behavior and Increase Sustainability in the Real World: a Systematic Review of the Literature”. *Sustainability*, 11, 5847 (2019): 1-41.

Both fields situate development as multilateral and influenced by contextual factors over time. This way of thinking about human growth and behaviour - often referred to as an ecological model of development - builds on the basic assumption that humans develop in interaction with their environment. All humans develop by interacting with the people, things, and settings around them. And these people, things, and settings change over time. Ecological models of development help us think about the factors that impact growth and behaviour and remind us that each individual is unique.

Models of Prevention

When we think ecologically, it helps us remember to consider factors across settings, levels, and time. Many educational models focus only on the individual level, considering how to change children's behaviours without considering the socio-cultural factors that are influencing how they behave. We can call the level at which we intervene the "level" of our intervention, i.e. the level of the society, the community, the family, the school, peers, or the individual. An example of an individual level intervention is psychological counselling, whereas a community level intervention might look like an information campaign (e.g. the Covid-19 prevention campaigns). Policies and social influence campaigns that shift behaviours would be at the macrosystem level.

Prevention science - guidelines for effective prevention

Based on the above, there are some key lessons from prevention science about approaches that are more likely to prove effective:

- *The most effective interventions are generally multi-tiered, happen across ecological levels, settings/contexts, and happen over time.* These programmes acknowledge that changing behaviour is hard and that the most effective approaches to changing behaviours intervene at multiple ecological levels simultaneously.
- *The most effective interventions are integrated and consistent.* Quick fix solutions usually don't have high payoffs. Shifting behaviour requires shifting hearts, minds, policies, and culture. Just as people change over time, so too our preventions and intervention programmes must be developmentally appropriate.
- *Feelings of competence, autonomy, and relatedness are all important for internal motivation.* Generally speaking, human beings act when they feel like they have the skills to do so (e.g., tools to avoid dangerous challenges), some agency in the process (e.g., choices about what to do instead), and a feeling of connection with others (e.g., the sense that they are helping, protecting, or connecting with others by making a positive choice).
- *Effective intervention programmes use a strengths-based approach that builds on children's skills and interests, and helps them to connect in healthy ways with others.* Strong programming focuses on the healthy and safe things that adolescents can do instead of simply telling them what not to do. For example, rather than saying, "don't smoke!" adults might offer students alternative after school activities and spaces that provide social opportunities (e.g. sports, arts, or tech programmes). Learning from the field of sexual health suggests that approaches that are inclusive and comprehensive, and work on risk reduction are more effective

than abstinence.

- *Identity development is often salient during adolescence, and many young people are particularly aware of inequality and injustice in their lives.* Programmes might consider how to build on this ethical commitment by providing young people with a chance to think and talk about the ethical issues that arise online. Similarly, in cases where students are not aware of the larger socio-political implications of their actions, programmes should address the ways in which youth may be unintentionally reproducing harmful messaging (e.g. messaging about weight, beauty, colourism etc.).
- *Effective programmes honour local knowledge.* People (and communities) know a lot about themselves and their self-identified needs.
- *Effective programmes secure local buy in.* This might mean gathering insights from multiple stakeholders and considering the problem locally. It also means taking the time to come to a consensus on the vision and values which you will base your programme on and evaluate at regular intervals. Make sure that all stakeholders (including youth) have a voice and a vote.
- *Finally, figuring out the essential ingredients of a prevention strategy is useful in allowing local actors to tweak and revise programmes to be culturally responsive.* Local communities and practitioners know their youth best. Creating intervention menus with different types of programming that people can put together (and tweak) is often successful.

It is clear from the evidence reviewed in this chapter that there are approaches that are more likely to work which have a significant body of research and theory behind them. Understanding the drivers for behaviour change helps to explain and reinforce why some approaches have been shown to be effective and others have not. For example, findings about socio-cultural relevance and wider community support are important because children and young people are influenced by multiple factors in their environment (and community buy-in allows reinforcement of messages at different levels of influence). Effective approaches focus on social and emotional competence and practicing skills that can be used when faced with difficult situations. They are also holistic, multi-layered and consistent through time, use community knowledge, focus on risk reduction, and offer young people both agency and alternatives.

Part 5 - Prevention education: views from the panel on effective approaches and ways to improve our response

5.1 Views on effective educational approaches

The expert panel discussed the difficulties that dangerous challenges presented and the approaches to prevention education they felt would be most effective.

Approaches that work effectively

There was consensus that approaches which work effectively with young people involve understanding the benefits of participation in challenges from their point of view. Interventions should involve listening and engaging with young people and where possible creating 'thinking space' to think through issues together with them and to guide them in developing critical skills and knowledge. This includes encouraging children and young people to reflect on their feelings and think about the way certain experiences make them feel and why. There was consensus that information on dangerous challenges needed to be taught in the broader context of media literacy, which includes helping children and young people to develop critical knowledge and understanding of online content of all kinds, including the full range of harmful or risky content they may encounter online.

Better understanding and acknowledgement of youth practices in relation to challenges

There was a view from the panel that we need to better understand the practice of engaging in challenges (in the context of local youth cultures) and talk to young people to understand what challenges signify and contribute to their lives. It was felt there needed to be a strong emphasis on engaging with children and young people, and understanding their perspectives as a starting point to shape interventions. Some panel members expressed concern that we should also acknowledge the rationality of engaging in online challenges for some young people as a way to achieve likes, shares and ultimately seek 'fame' as a pathway out of poverty in contexts where other traditional pathways to escape poverty (e.g. the education systems) are limited or closed. Linked to this, it was highlighted that platforms must ensure that their moderation strategies prevent influencers on their platforms from using dangerous challenges as a way to build a following.

Education and safety work with young children

There was a perception that internet safety education programmes for younger children are greatly needed and that many interventions start too late, and long after children and young people are exposed to harmful or risky content. Panel members noted the existing programming often barely reaches under 10s and is failing to instil the critical skills children need early enough.

Complexity and time needed for effective responses

There was agreement that running prevention in an effective way takes time and is more complex

than a one-off, teacher-led delivery of information about a given topic or risk. However, where schools are doing any work on online safety (and this varies considerably by country and locality), it is often the one-off information session that is requested by an individual school. The experts shared common barriers to finding time and space to work consistently and systematically in school environments following a specific programme.

Are schools the right environments?

As above, experts agreed on the need to find spaces where they can encourage children and young people to think and speak in an autonomous way about the digital environment. This commonly involved bringing different groups of children and young people together for discussions - with an adult to listen and guide. However, as schools tend to be pressured environments with an academic focus, there was a question as to whether schools could or should create space for social and emotional learning, or whether this needs to be picked up and developed outside a school environment by a broader set of actors, social workers, youth workers, child carers and parents. However, there was also a recognition that in some countries and locations children will not have access to another structured environment (other than school) where they could participate in a targeted programme or intervention.

It was also pointed out that in addition to working face-to-face with groups of children to explore their experiences online, it was also important for online platforms themselves to reinforce messaging and give them credibility. It was felt that prevention education messaging and tools needed to be made available online within the spaces (online services, apps and platforms) that children and young people spend time rather than solely relying on this occurring offline. This is considered further in section 5.4 Ideas for platform level interventions.

Parents

Panel members identified a number of issues which rely on parents for prevention education efforts. Assuming that parents will help children to critically assess risks, implies a certain parenting approach (which may be culturally specific) and it assumes that parents are aware of online risks, and recognise that children need protection from them. Experts also described cohorts of parents that are so digitally invested in the online environment themselves that they are unlikely to think critically about issues of safety or harm. Some experts pointed out that in many global contexts thinking about online safety is still considered a luxury that applies to elite groups.

Some experts described the opposite problem of digital parenting strategies as being inconsistent and panic-driven at particular moments of media attention (e.g. removing devices) based on a poor understanding of their children's digital lives. Yet despite these barriers and difficulties in working with parents, experts agreed that prevention work is far more likely to be successful when parents and communities are invested in them.

Who should lead prevention efforts?

The discussion above raised issues around how we should deliver prevention programmes and who takes responsibility to drive them forward, given the pressures on the school system, and where some

parents may not recognise the need. Some experts felt that we often over-rely on schools, and that we need a broader approach. Currently, NGOs appear to be driving prevention efforts and responses (although it was pointed out that these are not always consistently evidence-based or independently evaluated). Panel members agreed that ideally interventions are multi-layered, and involve children and young people, parents and carers, grandparents, youth and social workers, teachers as well as mainstream and social media. We heard that while multi-component interventions are important, it is hard to obtain funding and buy-in for these more complex and meaningful interventions with children. Concerns were raised about the most vulnerable not receiving input at school or at home, and that NGOs are relied on to reach children and young people who are at risk. This was also linked to the point that was made about providers' responsibilities to offer education and prevention messaging within apps, platforms and services as this is especially important for young people who are not supported in any offline environments.

Effective methods for working with children

The expert panel commonly described the value of peer mentoring programmes and initiatives involving children and young people themselves sharing their experiences with their peers and acting as a guide. Programmes were believed to be successful because they are led by young people who have grown up with a similar digital environment (and have faced similar choices) as the people they are guiding. Another approach highlighted was experiential learning, often through gamification approaches and projects that allow young people to practice skills (including emotional and regulation skills that enable them to recognise their feelings, set personal boundaries and use refusal skills). Panel members acknowledged the complex social, cultural, material dynamics associated with dangerous challenges and did not think there was one single approach to follow but rather that there needed to be multiple strategies.

At what age to talk to children about challenges and how

The panel members were asked about what they considered to be the right way to talk about challenges and in particular whether or not to name them because the lack of a consensus on this point may be a barrier to addressing dangerous challenges. The majority view was that this should be a balanced and context-specific judgement rather than suggesting there is a single right or wrong approach. There was an acknowledgement of the anxiety and reluctance that parents and teachers may feel towards proactively talking about specific challenges and thereby spiking interest in children who might not otherwise be exposed (a concern also shown in the TVE data).

Overall, there was felt to be value in naming challenges where there was already known to be widespread exposure. This was because for interventions to be effective, they need to be open and authentic and if a challenge has been part of children's online lives, adults need to be able to address the issue directly. It was also felt that adults need to be seen as a credible source of information and expertise in order for children and young people to seek help from them. One participant described the value of talking generically about types of challenges e.g. ones that can cause severe physical harm by impacting bodily systems or ones that can cause emotional harm due to disturbing and distressing content. This was felt to be a more positive approach than listing out specific named challenges and potentially sparking interest. With young children in particular it was noted that it was useful to teach 'refusal skills' more generally - so that young children are encouraged to recognise discomfort

or confusion and to walk away from something that upsets them and to inform an adult.

Most panel members felt that specific challenges should only be mentioned or named when working in a child-led context, with children mentioning them first or having clearly been exposed. Dr Graham advised there was value in an ‘inoculation’ approach where children (primary age) are introduced to the idea of challenges, and have this explained to them so that they are prepared for this kind of content before they encounter it.

5.2 Existing guidance and advice on how to approach challenges

DfE guidance on harmful online challenges and online hoaxes

At present there are limited examples of guidance on dangerous challenges or hoax challenges. One useful attempt to develop guidance to frame responses is the UK DfE guidance for schools and colleges.³⁹

UK example of best practice guidance - DfE guidance ‘Harmful Online Challenges and Online Hoaxes’

The guidance positions dangerous challenges and hoaxes as a form of harmful content that children and young people should have the opportunity to learn about:

‘Children and young people should have the opportunity to learn to critically identify and respond to dangerous or harmful content. It is therefore important that institutions provide safe and open spaces for children and young people to ask questions and share concerns about what they experience online without being made to feel foolish or blamed... You should make clear the avenues that children and young people have to access support if they are curious, worried or upset.’

The guidance emphasises that institutions should seek expert advice, and sensibly risk assess challenges and hoaxes themselves. The guidance calls for institutions to make a judgement about whether children and young people are likely to be aware of a hoax before deciding whether or not to address it:

‘Generally speaking, naming an online hoax and providing direct warnings is not helpful. Concerns are often fuelled by unhelpful publicity, usually generated on social media, and may not be based on confirmed or factual occurrences or any real risk to children and young people. There have been examples of hoaxes where much of the content was created by those responding to the story being reported, needlessly increasing children and young people’s exposure to distressing content.’

If you are confident children and young people are aware of, and engaged in, a real challenge that may be putting them at risk of harm, then it would be appropriate for this to be

³⁹To produce this guidance, the UK Government worked in partnership with UKCCIS (the UK Council for Child Internet Safety) and the Samaritans. The full guidance can be found at <https://www.gov.uk/government/publications/harmful-online-challenges-and-online-hoaxes/harmful-online-challenges-and-online-hoaxes>

directly addressed. Carefully consider how best to do this. It may be appropriate to offer focused support to a particular age group or individual children at risk. Remember, even with real challenges, many children and young people may not have seen it and may not be aware of it. You must carefully weigh up the benefits of institution-wide highlighting of the potential harms related to a challenge against needlessly increasing children and young people's exposure to it'.

Other guidance that has been produced about challenges shares similar themes to those above, with advice being to avoid naming specific challenges, research what they are about, give children strategies to deal with difficult or upsetting or risky content, and encourage children and young people to seek help if they need it. The advice also generally includes working to help develop children's critical thinking skills and helping them to learn to withstand peer pressure.⁴⁰

There are also some useful examples of guidance which has been produced to advise and support parents and help them find out more about a range of different challenges and how they work⁴¹ as well as some limited examples of support resources aimed at children, encouraging them to block and report if they encounter content about dangerous challenges or hoax challenges.⁴²

Examples of best practice to tackle dangerous challenges - Brazilian work from Instituto Dimi Cuida

The institute has developed a programme to tackle dangerous challenges. This includes a range of educational tools and resources for parents to use at home to teach children about how your body can be affected by challenges and how they may impact your health.

One example the institute delivered was a whole school programme which addressed year 6 to the end of high school. The programme included training all school staff, not only teaching staff but all adults including caretakers and security. They worked with teachers to deliver the sessions to the children in all year groups. They also worked with families - explaining to parents and carers some of the research-based evidence for why children are drawn to challenges/risks. The evaluation was very positive with parents saying they had a better understanding of their children's moods and behaviours.

The Institute's approach was initially built around a partnership with APEAS (Agir pour la prévention des jeux dangereux) in Paris and modelled on their prevention programme.⁴³ As it has developed, it has also been strongly influenced by the Wesley College Open Circle Programme in the US - which offers evidence-based social and emotional learning curricula.⁴⁴ The Institute uses open circle approaches to guide the groups that they run and encourage children

⁴⁰<https://www.saferinternet.org.uk/blog/advice-schools-responding-online-challenges> or for example <https://www.webwise.ie/uncategorized/responding-to-online-challenges-and-hoaxes/>

⁴¹13 Online Challenges Your Kid Already Knows About (Common Sense Media) <http://www.common Sense Media.org/blog/viral-youtube-challenges-internet-stunts-popular-with-kids>

⁴²<https://www.bbc.com/ownit/its-personal/when-you-see-something-scary-online> see also <https://www.internetmatters.org/connecting-safely-online/advice-for-young-people/the-hard-stuff-on-social-media/scary-challenges/>

⁴³APEAS Agir pour la prévention des jeux dangereux, see <https://www.jeudufoulard.com/> this organisation was set up in 2002 to educate parents and professionals about dangerous challenges and to prevent children coming to harm.

⁴⁴<https://www.open-circle.org/>

and young people to open up about their online lives. The Institute recommends setting up a local social competence programme that works on choices, responsibilities, empathy and citizenship.⁴⁵ A medida que ha evolucionado, se ha visto muy influenciado por el programa «Open Circle» del Wesley College de EE. UU., que ofrece planes de aprendizaje social y emocional basados en pruebas fehacientes.⁴⁴ El Instituto utiliza enfoques abiertos para guiar a los grupos que dirigen y animar a niños y jóvenes a hablar sobre su vida en línea. Asimismo, recomienda crear un programa local de competencia social que haga hincapié en las opciones, las responsabilidades, la empatía y la ciudadanía.⁴⁵

Example of peer-led approaches - Australia's Project Rockit - a youth driven movement to tackle cyberbullying

For over a decade, PROJECT ROCKIT has been empowering school students to stand up to bullying, hate and prejudice instead of standing by watching. Through the lens of (cyber)bullying, our workshops explore themes of inclusion, respectful relationships, social leadership, diversity, values and ethics and empathy.

PROJECT ROCKIT creates spaces where all young people have access to respect, acceptance, creative expression and real leadership skills. We send highly trained, passionate young presenters into schools to run workshops that empower students to lead positive change at school, online and beyond.

Show not tell learning

- Through role plays, activities, experiments and interactive discussion, key insights are driven by students and key messages are safely realised through experiential learning.

Strengths-based focus

- Our workshops have a strong focus on setting up positive norms. We aim to raise students social and self-awareness and create an environment where diversity is celebrated.

Outcome-alignment

- Our workshop outcomes are aligned with the Australian Curriculum, AMF's eSmart framework and we are officially certified by the Federal eSafety office.

Proactive strategies

- We provide young people with both strategies for tackling (cyber)bullying when it occurs and proactive strategies to keep themselves and others safe, connected and supported

⁴⁵(<http://www.institutodimicuida.org.br/en/como-prevenir/>)

Example of a gamification learning approach from the USA

The Social Institute (TSI) provides a gamified, online learning platform that empowers students to navigate their social world – social media and technology – to fuel their health, happiness, and future success. By reinforcing character strengths like empathy, integrity, and teamwork and by showcasing their role models (from student leaders to US Olympians), TSI use a relevant, positive approach to inspire students to make positive, high-character choices to #WinAtSocial.

TSI offer school communities:

- #WinAtSocial LIVE: A student-led, social-emotional, remote or in-person advisory programme addressing timely topics each week.
- #WinAtSocial Gamified Curriculum: Turnkey, year 4-12, full-year curriculum addressing social-emotional learning, social media, and technology delivered easily and flexibly during Advisory, Homeroom, Health Class, Residential Life Programming, or Community Time.
- Parent Resources: Help your parents stay ahead of the curve and help their children make positive choices with our parent presentations and content.
- Webinar or In-person Student, Parent, and Educator Presentations: Excite and empower students, parents, and educators with our popular presentation about social media, technology, and social-emotional learning.

5.3 Guidance on media reporting and sharing

In Part 1 of this report, we touched on the detrimental impact of media reporting on hoax challenges. Panel members discussed the ways that the media coverage can fuel interest, awareness, appeal, and participation. We saw that with hoax challenges coverage can be driven by well-intentioned but misguided awareness-raising and alerts from organisations seeking to promote safety.

Panel members suggested that media guidelines might play a role in addressing this issue and pointed to guidelines that exist around the reporting of suicide. In the UK, guidance developed by the Samaritans addresses the need to think carefully about how suicide is presented in the media to avoid copycat or suicide clusters.⁴⁶ Following on from the above guidelines in the UK, the National Institute for Clinical Excellence has developed a useful quality standard for media reporting on suicide. Further examples of important and credible media guidelines for suicide prevention include the 'Recommendations for reporting on suicide' guidelines in the US⁴⁹ and the World Health Organization's 'Preventing suicide: a resource for media professionals.'⁵⁰

⁴⁶<https://www.samaritans.org/about-samaritans/media-guidelines/media-guidelines-reporting-suicide/>

⁴⁷<https://www.nice.org.uk/guidance/qs189/chapter/Quality-statement-3-Media-reporting>

⁴⁸This quality standard draws upon the following sources: the World Health Organization's Preventing suicide: a resource for media professionals; the Samaritans' Media guidelines for reporting suicide; OFCOM's Broadcasting code; and the Independent Press Standards Organisation (IPSO). NICE's guideline on preventing suicide in community and custodial settings, outlines key criteria for reporting. This includes using sensitive language that is not stigmatising or in any other way distressing to people who have been affected, reducing speculative reporting, avoiding presenting detail on methods, and providing stories of hope and recovery as well as signposting to support.

⁴⁹<https://www.reportingonsuicide.org/> This guideline represents a collaboration between suicide prevention experts, public health experts, journalists and media organisations

⁵⁰https://www.who.int/mental_health/prevention/suicide/resource_media.pdf - guidance based on evidence from a review of investigations of imitative suicides

Potential implications for dangerous challenges and hoax challenges

In contrast to media coverage, the Samaritans find that when engaging in direct work with individuals, directly asking about suicide if you think a person may be suicidal, is the more protective approach and can directly help a person having those feelings⁵¹. This suggests a distinction should be made between media attention and amplifying general awareness of dangerous challenges and hoax challenges, and as explored above, talking candidly and directly with groups of young people who may be at risk. However, the suicide guidance above (and the reviews of media impact upon which they are based) do suggest that media guidelines could play an important role in reducing adverse impact from dangerous challenges and hoaxes.

Differing experiences of hoaxes - German media guidelines

One interesting finding from TVE's research was that the exposure to and impact of hoaxes in Germany is lower than in other countries in which the survey was conducted. It may be that there has been more limited dissemination of hoaxes (and hoax challenges) in Germany reflecting different media and public responses. It was brought to our attention that the German Press Code puts restrictions on reporting of details of victims, and children as well as illness, injuries and suicide (section 8)⁵². The fact that Germany stands out as having reduced impact from hoaxes may be worth further exploration.

Guidelines for sites and platforms hosting user generated content

In addition to its guidance for mainstream media, the Samaritans has also published guidance for sites and platforms hosting user generated content. This guidance includes suicide hoaxes, challenges and pacts⁵³ as categories of content which should be given priority in moderation strategies (for example by blocking harmful search terms relating to suicide hoaxes). Further guidance specifically on how to address user-generated content where users share warnings about suicide hoaxes as though they are true would be valuable.

5.4 Ideas from the panel for platform level interventions

The panel considered possible platform level interventions and highlighted the essential role of early moderation and removal of dangerous challenges to prevent exposure. In terms of supporting media literacy approaches, the panel felt there were many important avenues for platforms including clear messaging and lines of reporting for users to report this content. Furthermore, the panel took the view that platforms could proactively employ social media influencers to produce content to influence, educate and inform on these topics. These could be purposefully promoted on the platform, so they reach a wide audience. Panel members felt that platforms would have a better understanding of how to make dangerous challenges less cool, or alternatives more desirable, and could work with

⁵¹<https://www.samaritans.org/how-we-can-help/if-youre-worried-about-someone-else/supporting-someone-suicidal-thoughts/>

⁵²This was identified by our expert panel member from Germany Dr Jutta Croll -who suggested the reduced exposure and impact could be a result of compliance with clear media guidelines for reporting this kind of content.

⁵³<https://www.samaritans.org/about-samaritans/research-policy/internet-suicide/guidelines-tech-industry/guidelines/>
See also [Reducing_access_to_harmful_self-harm_and_suicide_content_online_FINAL.pdf](#) (samaritans.org)

young creators to co-design (and test) effective content of this kind. This could help to counter the influencers who may gain followings or approval for undertaking risky challenges.

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A further intervention suggested by panel members was enforcing pauses and serving more on platform education and information about challenges at the point where a user encounters the content. While it was agreed that it was important for moderation processes to actively suppress challenges that are dangerous, it was felt that education and information could be served on platforms for challenges that are unhelpful, anti-social or unpleasant rather than dangerous. At that specific moment, the platform could serve further information (in neutral/ factual terms) about a challenge - potentially in the form of a pop-up. Suggestions for content included examples such as: 'other users have reported that doing this can cause harm' in relation to challenges, or 'other users have reported this as a hoax intended to cause distress - sharing this will increase its popularity and means others will see it' for hoax challenges.

The panel were mindful of the risks of unintended consequences, where content warning labels for example can serve to make content cooler and increase consumption of it, but it was agreed that low-key factual information could be useful. We have seen from TVE's research that teens are risk-assessing by reading comments and watching warning videos so it does appear that young people are influenced by content at this stage.

There was a discussion within the panel of whether nudge techniques to create behaviour change approaches work with young people, and there was caution that they need to be subtle, tested for impact and tracked over time (as they may become less effective as pauses or other attempts to influence behaviour can become normalised for young people). It was also agreed that approaches need to be coordinated, acknowledging that suppression of content on one platform carries the risk of increasing its profile on other platforms unless there is a coordinated and systematic approach across platforms.

The need for authoritative and timely information on challenges.

The panel identified a need for specific, high-quality and useful information about individual dangerous challenges and hoax challenges that can be shared in a timely way. A single central point (or searchable website) could hold and disseminate evidenced-based information and reduce the confusion and rumour that can increase the virality of some of this content, including 'secondary' content (e.g. reports and warning videos and posts). Useful information would include intelligence about spread, methodology of the dangerous challenge or hoax challenge and information about its origination, scale and potential physical and mental health impacts of participating. This independent team approach could also helpfully pave the way for a more coherent approach to this content across different platforms.

Part 6 - Recommendations

The data that we have available suggests that the majority of children are not themselves participating in challenges of any kind (including even those that are fun and safe) and that only a small minority of those participating in challenges are doing so with challenges that are dangerous. However, given the impact that dangerous challenges can have on individual children that are affected, it is important to understand how we can enhance safety and prevention work in this area.

We have found that when it comes to dangerous challenges, the vulnerability and motivations of those engaging can be complex and include social, emotional, cultural, and developmental drivers that defy simplistic interventions or abstinence-based messaging. This report suggests the value of equipping children, as well as parents and carers, teachers and communities with information and tools to better evaluate, approach and manage this online risk. In this final section, we summarise useful ideas and prevention strategies which we have identified and discussed within this report.

Our recommendations below are focused on effective prevention education and preventative approaches that are targeted primarily at children and young people (and those that care for or work with them). However, it is important to emphasise that prevention education (although it is the focus of this report) is not the whole solution and that a number of actors have a key role in tackling dangerous challenges in ways that go beyond education and media literacy. In particular, it was clear from our exploration of this issue that platforms themselves have an essential responsibility in relation to effective content moderation. Platforms should prioritize identification and removal of this content and should proactively use algorithms to surface dangerous challenges and prevent this content from being seen by younger users. Platforms also have a responsibility to ensure that they have clear messaging and education within their services and user-friendly reporting flows, so that users are encouraged to report harmful and dangerous content and are able to do so easily.

Recommendations on effective prevention approaches

Recommendations for organisations (including NGOs, community organisations or schools) developing prevention programmes to reduce risky behaviour (including on dangerous challenges):

- Consider the existing body of research and strong consensus on what contributes to effective prevention education.⁵⁴
- Design interventions and programmes in ways that recognise the drive that young people have to learn new skills, and to develop and overcome challenges as part of growing up. Provide ways to help children and young people distinguish between acceptable and unacceptable risk (acknowledging that taking risks can create positive opportunities for personal growth provided risks are proportionate and understood). Where possible offer alternative choices and opportunities for exploration and experimentation that are meaningful and fun.

⁵⁴<https://www.pshe-association.org.uk/curriculum-and-resources/resources/key-principles-effective-prevention-education>

- In line with UNCRC and children and young people’s right to participation and to have a voice in interventions that affect them, involve children and young people in the co-design/creation of education materials and have peers or young ambassadors participate or lead.
- Consider using a range of strategies that engage children and encourage them to think critically about online practices in a non-judgmental space. Consider designing and using active and experiential learning approaches including gamification or trial activities where young people can practice skills and experiment with different approaches that they can then use when confronted with risky content.
- Interventions will be more successful if they are supported and reinforced by the local communities. Interventions should include and engage local children, parents and schools (as well as where possible any other more informal spaces where children spend time in their communities).
- Encourage parents to use effective interventions with their kids, framing these around open communication and critical thinking. Help parents to recognise that removing devices or simply telling children to abstain may be counterproductive.
- For younger children, recognise that prevention education needs to be tied to and appropriate to their developing capacity. This may need to focus on helping them to recognise when they find something upsetting or confusing and giving them the skills and confidence to walk away.

Recommendations for local NGOs, community organisations, schools or parents’ groups when considering how to approach dangerous challenges specifically:

- Include dangerous challenges in education and media literacy strategies that are evidence-based and independently evaluated for effectiveness.
- When working with a specific group of children and young people, decide whether it’s appropriate to name a challenge specifically if it is causing concern. In some contexts, it will be more authentic and protective to mention them rather than avoiding direct naming, but this will require a balanced judgement. Delivering child-led interventions will tend to indicate whether it is appropriate to directly name a challenge or not.
- When working with children, there is value in psychological inoculation, and this may be achieved by speaking about types of challenges rather than specifics (e.g. challenges that impact on bodily systems and which can cause severe bodily harm).
- We found that it is rarely helpful to simply raise awareness (e.g. among parents, or a school community) in a one-off intervention. Interventions need time for thoughtful discussion, reflection and scaffolding of the information, including signposting to further support and practical advice on what to do. Approaches would helpfully be combined with existing media literacy and social and emotional competence interventions.
- Recognise that young people want agency and the opportunity to make a positive choice - offer them information about challenges that is accurate, honest and useful and helps

them to assess risk. This links to providing better and more useful (and trusted) information both online and offline.

- Following social norms research, share the fact that most young people are actually not participating in dangerous challenges.

Recommendations for online platforms to improve literacy and education approaches (for a fuller discussion of industry responsibilities including essential moderation and removal strategies see above):

- Address the current lack of dedicated, on-platform media literacy resources on dangerous challenges for young people, parents and educators. Provide on-platform messages and information on evaluating and reporting potentially harmful challenges and recognising hoaxes.
- Collaborate with creators and influencers to provide guidance on dangerous challenges and reduce the desirability of participation and engagement (sharing, liking and commenting).
- Support young people's decision-making process by creating moments in the user journey where users are encouraged to pause and reflect when they encounter information about challenges (including hoax challenges).
- Explore the feasibility of supporting a team of independent experts to work across platforms to monitor, review and designate challenges (including hoax challenges) and to provide factual and timely information about those that pose a risk of physical or emotional harm.
- Support media literacy educators to deliver effective prevention programmes that are comprehensive, multi-layered and evidence-based, including contributing to costs.

Recommendations for law enforcement, public health, schools, media organisations and other trusted sources:

- Where possible, offer clear public messaging about what hoax challenges are, informed by prevention science, explaining how they work and how we can protect each other from the impact that they have. This includes avoiding unhelpful alarms and warnings which drive traffic to disturbing content.
- Ensure that explanations of 'hoax challenges' are clear both that the narratives are lies designed to cause fear and panic, but also that engaging with hoax challenges may bring young people into contact with individuals who are using the false content to exploit and harm.
- Develop and/or follow media guidelines on dangerous challenges and hoax challenges drawing on best practice in relation to media guidelines on the reporting of suicide. This is important to avoid increasing exposure to harmful content as well as to help frame more constructive (and less panic-driven) prevention education responses.