Be Internet Legends and Be Internet Citizens

Impact Report

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Contents

Acknowledgements 04
Introduction 06
Digital Citizenship in the UK 08
Key Findings 10
Recommendations 16
Endnotes 18
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The internet provides an incredible number of benefits and opportunities, from unfettered global connectivity to unparalleled convenience in our daily lives. A world of information and entertainment now lies at our fingertips. Digital technology has transformed the way that people explore, learn and create in new and exciting ways. It is no surprise then that these technologies are central to our lives: 90% of UK households now have internet access, and 89% of adults living in the UK use the internet at least weekly.

Young people in particular enjoy the numerous advantages the digital world offers, whether by using it as a means of education, a way to connect with family, friends or new people, or to boost self-esteem by finding inspiration online. They are also among the most prolific users of the internet: according to Ofcom, 97% of 8–15 year olds go online each week for 14–21 hours. Almost 40% of British 15 year olds are spending over six hours online every day.

But with any new technology, in addition to the benefits it provides, there is the potential for improper or malign use. In addition to bringing people together, informing them and making government data more accessible, the digital world can also be used by bad actors to polarise society, harass and manipulate individuals. As a society, we need to confront these online harms, which can include everything from divisive hate speech posts and intimidating acts of cyberbullying, to misinformation and disinformation.

Young people are especially vulnerable to these harms: according to the Royal Society for Public Health, over a third of British 12–15 year olds have encountered racist, sexist or discriminatory content online, and 7 in 10 young people have experienced cyberbullying. Three-quarters of 12–15 year olds say they are aware of fake news, but only a shocking 2% of children have the critical literacy skills to determine whether an online news story is real or fake. Two-thirds of teachers believe this is causing considerable levels of anxiety in young
The increase of technology in our daily lives has exposed the need to build young people’s skills to deal with new online challenges.

Education and the empowerment of youth has a huge role to play in tackling these issues. Young people should be taught how to develop their critical thinking skills, communicate online in a constructive and empathetic way, and how to demonstrate positive behaviours as active digital citizens. To support this process, Google is working with the Institute for Strategic Dialogue (ISD) and Parent Zone to deliver two education programmes that seek to build digital resilience and citizenship. They aim to increase young people’s ability to stay safe online, as well as develop the norms and behaviour that can help to create positive, pro-social online communities.

**Be Internet Legends** is a programme for children aged 7-11, created by Google in partnership with the digital family experts at Parent Zone. The programme is delivered through both an extensive series of assemblies and through teachers delivering the curriculum to their students.

**Be Internet Citizens** is a programme for teenagers aged 13–15, developed in partnership with ISD, YouTube Creators for Change, Beatfreeks and expert youth facilitators. The programme was delivered through a series of school-based workshops, teacher trainings and youth worker trainings.

Both programmes are accredited by the PSHE Association, the national body for promoting personal, social, health and economic education.

This summary report presents the findings of an impact and process evaluation of these programmes, designed to ensure that they reached their target audiences, to identify whether the programmes helped drive positive behaviour change in the children and young people that went through the training, and to provide insights into what improvements should be made for future delivery.

We also sought to test different models of delivery: the role of different types of facilitators of each programme, and their setting (whether in formal or non-formal education contexts). The evaluation included pre, post and longitudinal surveys, focus groups, and interviews with young people, teachers and youth workers. It also included comparison groups to control for externalities.

Overall, the evaluation found that both programmes improved the digital citizenship capacities of participating young people, increasing their knowledge.
In the report Growing Up Digital, the Children’s Commissioner describes digital citizenship as ‘how to protect your rights online and respect others’ rights; how to disengage as well as engage with the digital world – ultimately, nothing less than how to make the online world a force for good and one which empowers and inspires children, rather than entrapping them’.9 The Council of Europe defines it as ‘the ability to engage positively, critically and competently in the digital environment, drawing on the skills of effective communication and creation, to practice forms of social participation that are respectful of human rights and dignity through the responsible use of technology’.10

Both descriptions point to a growing recognition of the need to move beyond online safety and empower young people as active, engaged and responsible citizens of the online world. However, digital citizenship as a subject is still new and remains underdeveloped in the formal and informal education sectors. As such, while several organisations and bodies have loosely defined the subject, there is currently no standard definition.

While there are clear areas of overlap across existing terms, the absence of a uniform definition for digital citizenship led us to create our own as the basis for education programming in this area:

**Digital citizenship education develops the knowledge, skills, behaviours and attitudes needed for students to become positive and responsible actors online. This begins at a young age with an understanding of how to be confident, safe explorers online, then extends into recognising their rights and responsibilities online, how to be critical consumers of information and, for teenage students, how to respond to hateful digital content effectively.**

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**Current Approaches and Challenges**

In order to assess the current approaches taken to teaching digital citizenship, we undertook a thorough desk-based review of relevant programmes. While we found several educational resources that support teaching aspects of digital citizenship, there is currently no comprehensive data on the extent to which schools are teaching the subject. We surveyed secondary school teachers participating in Be Internet Citizens, and found that 58% had never taught the subject before, despite 92% thinking it is very important to deliver in schools.

**Formal Education**

Within formal education, many resources focus on a specific topic, such as young people’s rights online or spotting fake news, or pay attention to a more conventional range of online harms, such as cyberbullying and grooming, thereby emphasising reactive rather than proactive measures young people can take to be safe and responsible digital citizens.

The national curriculum offers wide scope for digital citizenship to be taught, and the recent draft Relationships and Sex Education (RSE) guidance and the Online Harms White Paper offer recommendations on what primary and secondary schools should be teaching young people about the internet. They do not, however, offer advice on where schools should teach these topics. It is clear from our research, however, that the government’s current approach of giving schools the freedom to deliver core digital citizenship components across the citizenship, computing and PSHE programmes of study should be revised to offer more specific guidance on how best to embed this learning into the curriculum. For example, instead of these core components being taught piecemeal across the curriculum they could instead be delivered through one robust, comprehensive programme of study. Our analysis of surveys completed by secondary school teachers we trained showed that 75% think that PSHE teachers do not know enough about digital citizenship to teach it effectively in schools, while only 18% think it is taught well in their own schools.

**Informal Education**

Within informal education, youth workers deliver sessions on a wide range of issues that they deem to
be a priority for young people in their geographic area. Many provide sessions on social media use and mental health, and broader online safety issues like cyberbullying. However, judging from our online review of digital citizenship resources, there appears to be less provision for digital citizenship topics such as dealing with online hate speech, recognising fake news and understanding its impact.

While provision for comprehensive digital citizenship learning in youth centres is currently thin across the UK, the subject received more attention in 2018, as issues such as fake news and online hate speech continued to gain prominence in educational and youth discourse. As the formal education sector begins to take the subject more seriously, it is likely that the informal sector will follow suit, since many youth groups use the PSHE Association’s learning objectives to underpin their sessions, and these are typically based on statutory guidance.

Educating the Next Generation of Digital Citizens

In light of the gaps identified in existing provision with respect to digital citizenship, Google worked with a range of civil society organisations, including Parent Zone and the Institute for Strategic Dialogue, to develop two programmes that aim to build the knowledge, confidence and skills of young people to be resilient and safe online users: Be Internet Legends and Be Internet Citizens. In this section, we present an outline of each programme as well as the key findings from the impact evaluation in 2018.

We measured the impact of these programmes in three ways:

- **Average confidence**: this measure includes the extent to which confidence levels increased across the entire cohort of young people participating in the programme. It is measured through the percentage increase or decrease of the overall mean (average score) on a 7-point Likert scale across the entire cohort.

- **Individual confidence**: this measure looks at the percentage of young people participating in the programme who reported high levels of confidence (selecting 5–7 on the Likert scale) before and after the programme.

- **Knowledge tests**: this measure looks at young people’s knowledge gains through multiple choice or open text questions.
Be Internet Legends

Be Internet Legends is a free educational programme created by Google and the family safety experts at Parent Zone. It was designed to empower UK Key Stage 2 pupils (ages 7–11) with the knowledge and skills they need to be safe and confident online explorers. It was developed collaboratively by leading organisations on internet safety, including the Oxford Internet Institute, Department for Education and the National Crime Agency’s Child Exploitation and Online Protection centre (NCA-CEOP).

The programme, officially launched in March 2018, consists of:

- a PSHE Association-accredited resource pack for teachers, which includes lesson plans, stickers, posters and activities
- an interactive assembly roadshow across the UK
- Interland, an online game that teaches the key lessons of internet safety through four fun, challenging games
- a family guide with tips and activities for parents and children to learn together

The curriculum is built around five internet safety pillars:

- **Be Internet Sharp and think before you share**: explore the importance of protecting your online reputation through practical activities exploring what is OK to share on the internet and what is not.
- **Be Internet Alert and check it’s for real**: recognise when something online may not be reliable and identify the clues to determine what’s real, fake, misleading or a scam online.
- **Be Internet Secure and protect your stuff**: learn the tools available to protect yourself and your information online including using strong passwords.
- **Be Internet Kind and respect each other**: understand what it means to be kind online, respect other people’s privacy and respond to negativity encountered online.
- **Be Internet Brave and when in doubt, discuss**: it is important to speak to trusted adults and ask for help when coming across tricky or confusing situations online.

In 2018, Be Internet Legends delivered over 800 assemblies in primary schools across the UK, training 120,000 children how to be Sharp, Alert, Secure, Kind and Brave online. Additionally, over 18,000 primary school teachers ordered the resources online, with 53% of them reporting they had used them with an average of 100 children, reaching over an estimated 955,000 children in total.

We evaluated the delivery of the Be Internet Legends curriculum in four different primary schools across the UK, which are representative samples of the schools that currently participate and/or have participated in the programme. In each of these four schools:

- we delivered pre and post surveys to all Key Stage 2 children
- a selection of children participated in a qualitative focus group
- two teachers participated in semi-structured interviews about their experience with the curriculum.

These surveys primarily consist of self-assessed confidence measures, i.e children rated their own confidence between 1-7 on a Likert scale. A key limitation to note, therefore, is that children of primary school age are not always able to assess their understanding of concepts accurately, meaning some of these findings may under- or overestimate the actual impact.
Key Results

Overall, 8 in 10 primary school children (83%) who completed the Be Internet Legends programme said that they would behave differently online as a result of having learned how to be more positive through the lessons.

The largest increase in average confidence was observed in children in years 5–6 on how to build a positive digital footprint online. Here, there was an increase of 92% in average confidence, which demonstrates one of the key strengths of the programme: drawing children's attention to the repercussions of information shared online. Supporting this finding, after the programme, children in focus groups had a good understanding of why sharing personal information online could be dangerous, with one child remarking, ‘You don’t want a hacker getting into your account and getting your information.’

Another large increase in average confidence was found with children in years 5–6 and their ability to identify phishing scams (60%). This is particularly important given how children use the internet for video games, where scamming can be prevalent. During an interview, one teacher asserted that online gaming was one of the greatest risks to children because via online games children access large communities of strangers and people who they are not normally exposed to.

Some of the largest increases in individual confidence following the programme were:

- Approximately 9 in 10 children in years 3–4 (88%) reported being confident to speak to an adult about things they encounter online after the programme, compared with under 8 out of 10 (78%) beforehand.
- 7 in 10 children (71%) in years 5–6 reported being confident identifying phishing, compared with just over 2 of 10 (25%) beforehand.

There were also statistically significant increases in tested knowledge following the programme, including:

- 8 out of 10 (81%) children in years 3–4 could name the key elements of a strong password after the programme, compared with less than half (47%) beforehand.
- Approximately 4 out of 10 (44%) children in years 5–6 were able to identify scammers after the programme, compared with approximately 2 out of 10 (25%) beforehand, demonstrating improvements in their critical thinking skills in judging online content to be deceptive and unreliable.

The lessons model was the most effective for children participating in Be Internet Legends, showing that longer sessions with deeper engagement lead to greater knowledge and skills gains in children.

Survey results and interviews with teachers showed that the lessons model had a greater impact on children than the assemblies, which were less conducive to effective teaching and learning. Following the lessons, participants reported greater enjoyment and a greater likelihood to use the internet differently than was reported by children who participated in assemblies.

Responses from some of the teachers that were interviewed emphasised that lessons allow for more engagement and in-depth interaction than assemblies, a point which was reflected in the quantitative analysis. This is particularly important when delivering a full and pertinent curriculum in primary schools, as younger children require greater attention than older children. One teacher from Priory Primary School noted that, “Lessons are more successful. While both are successful for delivering the material, lessons enable the teacher to focus on areas of concern.”
Be Internet Citizens

Be Internet Citizens is a PSHE Association-accredited programme for teenagers aged 13–15, delivered in partnership with Google, the Institute for Strategic Dialogue (ISD), YouTube Creators for Change, Beatfreeks and expert youth facilitators.

It was designed to teach 13–15 year olds critical thinking and digital citizenship skills, encouraging them to have positive voices online while increasing their resilience to hate and extremism, and to fill some of the current gaps in digital citizenship education. It also sought to empower teenagers as producers (not just consumers) of online content.

In 2018, ISD improved and adapted the 2017 curriculum, the delivery of which was also evaluated, into two new resources: an accredited unit of work for teachers and a community toolkit for youth workers. These resources were comprised of the following sessions:

• **Three Sides to Every Story** - This lesson supports students to develop a good understanding of what fake news, biased writing, echo chambers and filter bubbles are, and to explain their impact on individuals and society. As a result of the learning, they will be more confident in forming their own opinions in online contexts.

• **Emotional Manipulation** - This lesson includes videos that present examples of emotional manipulation, and prompts a discussion around what emotions the videos stimulate, how those emotions are triggered, and the motives of the video creator in stimulating that emotion. It seeks to develop an increased critical awareness of the use of emotional manipulation.

• **Us vs Them** - This lesson enables students to understand how powerful ‘us vs them’ divisions can be, and encourages them to think of where they have seen this rhetoric used online. Through the lesson activities, students should understand how divisive arguments can lead to problems in society, as well as being wary of the consequences of labelling individuals. After this and the preceding two lessons, students should have a sound understanding of how certain online social environments can shape opinions. Students will build on that learning in the next lesson to learn how to respond to hate speech and intolerance online.

• **Haters Gonna Hate** – This lesson is designed to help students understand what acceptable and unacceptable online behaviour is, and how to distinguish between hate speech and free speech. The lesson also explores how to react to hateful content online, including the use of various online tools such as reporting, flagging and blocking.

A fifth creative lesson was included in these resources, which encouraged participants to produce a creative output that reflected their new digital citizenship knowledge.

ISD designed a two-pronged delivery and evaluation model for the implementation and impact measurement of the programme in the formal and informal education sectors in 2018:

1. **Direct Delivery**: from February to December 2018, a team of expert youth facilitators delivered 11 workshops in 11 schools across the UK; each comprised roughly 150 students from years 9 or 10. In total, roughly 1,500 students were reached through this model. The workshops were designed to teach the students the entire curriculum through fun and interactive sessions across the school day.

   Evaluation of the workshops drew on quantitative and qualitative measurement methods: participant

   **88%** of teenagers were confident they could identify fake news after being taught the programme, compared to 68% prior to it.

   **71%** of teenagers were confident that they understood filter bubbles after the programme, up from 14% prior to it.
student and control group student surveys pre- and post- delivery, at three months (mid-term) and six-months (long-term) designed to measure understanding of good digital citizenship through a series of confidence-based Likert scale measures.

These surveys were complemented by evaluations from four focus groups with 32 participating students, who gave detailed insights into their experiences of the school workshops. We also conducted interviews with three teachers to gain an understanding of the school within which the workshops took place and the subsequent impact of the workshops.

2. **Train-the-trainer**: Between May and October 2018, six teacher training sessions and four youth worker sessions were delivered by a combination of ISD staff and expert facilitators across a range of UK locations. In total, 302 practitioners were trained in their respective Be Internet Citizens resources, and estimated that they would teach the curriculum to approximately 20,500 young people in the 12 months following their training.

Practitioners completed a pre- and post- survey on the day of their training which asked them:

- questions about their experience with digital citizenship education and resources
- questions on a Likert scale measuring their confidence in and understanding of key elements of the curriculum
- open response questions, measuring their knowledge of key curriculum elements.

Following their training, we asked four teachers and three youth workers to administer pre- and post-surveys to the teenagers they taught the curriculum to, investigating the impact of the train-the-trainer model. In total, 223 teenagers completed these surveys, and 166 of this total also completed a three-month follow-up survey, allowing us to track long-term retention rates.

Qualitative feedback from practitioners was also received through a combination of open-text survey responses and interviews with 3 teachers and 2 youth workers.
Key Results

Student Surveys

Overall, 9 in 10 teenagers (92%) who participated in the Be Internet Citizens programme felt they had gained new knowledge, 8 in 10 teenagers (86%) felt they had acquired new skills, and 7 in 10 teenagers (71%) felt they would behave differently online as a result of being taught by trained teachers.

The largest increases in average confidence were observed in teenagers’ understanding of key concepts, including echo chambers (122% increase), filter bubbles (116% increase), scapegoating (79% increase), ‘us’ versus ‘them’ argumentation (26% increase) and ‘fake news’ (25% increase).

Some statistically significant increases in individual confidence were seen, including:

- 9 in 10 teenagers (88%) were confident they could identify fake news after being taught the programme, compared with less than 7 out of 10 (68%) beforehand. One student from Kenton School reported in a focus group that, “being able to identify fake news and knowing if it’s true or false is really useful”.

- 7 in 10 teenagers (71%) were confident that they understood filter bubbles, compared with just 1 in 10 teenagers (14%) beforehand. Practitioners also noted that it was imperative to include this type of education in schools as “a lot [them] focus on very “surface” type lessons and certainly don’t look at things like filter bubbles and echo chambers”.

The train-the-trainer model was the most effective for teenagers participating in Be Internet Citizens; they gained and retained stronger knowledge and skills three months after being taught the curriculum by teachers and youth workers, compared to the school workshop model. This suggests that digital citizenship education is most effective when delivered by practitioners over sessions embedded in school and youth centre timetables over a longer period of time.

Analysis of the surveys that teenagers completed three months after participating in the train-the-trainer model showed that their confidence increases continued to be statistically significant and positive for nine of those confidence measures and all three knowledge questions. Moreover, teenagers retained the significant knowledge of fake news, hate speech and scapegoating that they gained from the curriculum three months after the training.

Teacher and Youth Worker Surveys

Prior to attending a Be Internet Citizens training, teachers and youth workers expressed their views on the importance of teaching digital citizenship:

- 98% of teachers and 100% of youth workers said it was either very important or important to teach digital citizenship.
- 97% of teachers said they would certainly or probably like more training in schools, and 99% of youth workers said they think learning about digital citizenship is valuable for practitioners.

There were also notable increases in tested knowledge, including:

- 8 in 10 teenagers (81%) able to correctly define hate speech three months following the programme, compared with 6 in 10 (65%) beforehand. A student from The Grange School reported that, “If I see hate speech now I’ll know what it is, but I didn’t know before”.

- 7 in 10 teenagers were able to identify fake news three months after the programme (71%), compared with 4 out of 10 (42%) beforehand.

98% of teachers said it was either very important or important to teach digital citizenship

25% of youth workers said that digital citizenship was either badly taught or very badly taught in their youth centres
On the other hand, practitioners also reported that they do not currently feel that their schools and youth centres deliver adequate provision of digital citizenship:

- **50% of teachers** said they thought digital citizenship was either badly taught or that they didn’t know if it was taught at all in their schools. Only 13% of teachers said they knew a lot about digital citizenship, compared to 39% who said they knew a little or none at all about the subject.
- **25% of youth workers** said that digital citizenship was either badly taught or very badly taught in their youth centres, and 69% of them said they knew only a little or nothing at all about digital citizenship.

Practitioners themselves commented on the importance of teaching digital citizenship, with one teacher commenting that, “We absolutely need to teach more digital citizenship, I just see it as a no brainer. I think schools only focus on things which impact on them such as cyber bullying without understanding the wider context.”

Following their attendance at a training, there were statistically significant increases in practitioners’ knowledge and confidence:

- **Teachers’ confidence across all 11 measures had significantly improved**, including increases in understanding filter bubbles (by 145%), echo chambers (by 119%), and fake news (by 37%). 97% of these teachers said it was very likely or likely that they would deliver some of the Be Internet Citizens resources following their training.
- **Youth workers’ confidence across 10 out of 11 measures significantly improved**, including their understanding of filter bubbles (by 124%) and echo chambers (by 107%). The only exception was ‘I understand the concept of free speech’, which still increased but not significantly. 90% of these youth workers said it was very likely or likely that they would deliver some of the Be Internet Citizens resources following their training.

One youth worker who attended a training session in Cardiff said the training helped participants ‘gain lots of new knowledge’, while a teacher who attended the Manchester teacher training noted that participants ‘now feel confident to now get the pastoral team trained up to deliver to most pupils in the school’.

These results evidence the success of frontline practitioners at imparting sustainable knowledge of digital citizenship concepts to young people, and signal a long-term need to invest in training. Accordingly, Be Internet Citizens should scale up its teacher and youth worker training models, as a cost-effective approach to achieve impact at scale.

**We absolutely need to teach more digital citizenship, I just see it as a no brainer. I think schools only focus on things which impact on them such as cyber bullying without understanding the wider context.**

Participating teacher


Recommendations

Tech companies, the Government, educators, parents and civil society actors need to work together in order to keep pace with the changes to the digital world and update the education system accordingly. The following recommendations focus on how further collaboration between stakeholders can empower young people to realise their potential and improve their online communities as good digital citizens:

Define and standardise digital citizenship.

There is broad recognition of the need to build digital literacy skills and knowledge, as evidenced in the Government’s 2019 Online Harms White Paper,\(^\text{14}\) while the DCMS Select Committee report Disinformation and ‘Fake News’ (2019) recommends that digital literacy should be a ‘fourth pillar of education, alongside reading, writing and maths’.\(^\text{15}\) This is a worthwhile idea, but it is important that digital citizenship is recognised as a core component of digital literacy and is effectively taught in schools and youth centres. As such, the Government should produce a standardised UK definition for digital citizenship so that education practitioners clearly understand what it means, why it is an important part of young people’s education, and the specific knowledge, skills, attitudes and behaviours it entails.

The Government’s Online Harms White Paper (2019) suggests that supporting information will be produced for schools on how to teach internet safety – this would present an ideal opportunity for the Government to define digital literacy and citizenship and emphasise their importance.\(^\text{16}\) The white paper places a lot of emphasis on media literacy and proposes the creation of an online media literacy strategy; this is an important and positive step, but it should sit at the heart of a wider drive to improve digital citizenship learning, in line with similar proposals made by the Children’s Commissioner.\(^\text{17}\) Along with media literacy, practitioners must be guided to teach the rights and responsibilities of young people online, the need for critical thinking in all online activities, and norms for online social cohesion.

Embed digital citizenship into the national curriculum and provide training for practitioners.

The Government has promised to improve aspects of digital literacy, as evidenced by their draft statutory guidance for relationships education, RSE and health education (2019), and recent proposals in the Online Harms White Paper (2019).\(^\text{18}\) However, there is still a lack of robust, supportive guidance on how digital literacy should be taught and where it would fit in an already overcrowded curriculum. Currently schools are free to determine how they deliver this content, which risks there being ineffective teaching and inadequate learning, or an absence of provision entirely. More than half (58%) of the teachers trained on the Be Internet Citizens programme had never taught the subject before, despite 85% thinking it is an extremely important subject to teach.

Rather than being spread piecemeal across the PSHE, Citizenship and Computing programmes of study, digital literacy and digital citizenship should be a mandatory component of one of these subjects. The Government should also encourage and support leaders of schools and youth centres to train staff to deliver effective digital citizenship learning, and promote effective initiatives that facilitate this. The Government’s response to the RSE guidance consultation backs these ideas: it highlights that teachers have been vocal about requiring more training in this area and ‘additional guidance on which resources are appropriate’. Our research supports this: 95% of teachers we trained wanted more training in digital citizenship. Senior leadership teams in schools should allow adequate CPD (continuing professional development) time for the relevant staff to develop their expertise in this area.

Technology companies need to continue investing in digital citizenship education programmes:

While the Government should ensure that the national curriculum is updated to include teaching digital citizenship, these companies also have a vitally important role to play in ensuring that young people’s education in this area is delivered in an effective way. As the operators of vast social media platforms, they are uniquely placed to work with civil society organisations (CSOs) in order to keep pace with changes in technology and adapt digital citizenship learning accordingly.

For example, teaching on fake news should now include covering the rise of ‘deep fake’ video content and manipulated images which will exacerbate the challenges young people face in evaluating the quality of information. Technology companies should feed insights on new trends like this into the development of educational programmes that teach young people...
digital citizenship and resilience online. Moreover, the size of these firms means they are able to leverage their extensive resources to scale these programmes in order to reach significant proportions of young people in the UK.

Companies should also continue to build out digital tools to ensure that young people are more aware of and resilient to the range of harms they face. It is important that technology companies continue to invest in the charities that deliver these educational programmes, and that they do so through a formalised funding stream that ensures they are sustained at scale and improved upon year on year.

**Support effective digital citizenship teaching in informal education contexts.**

Our research for Be Internet Citizens shows that 88% of teenagers taught the curriculum in youth centres said they would behave differently online as a result. This was a more significant behavioural change than achieved among teenagers learning the curriculum in schools (72%). This could point to youth workers being the most credible messengers to inspire young people to behave more positively online. Moreover, interviews conducted with youth workers confirmed that digital citizenship education in informal contexts is extremely valuable, not least because the nature of informal learning allows for in-depth discussions on key concepts such as fake news and filter bubbles, echo chambers and emotional manipulation. Governments, CSOs, tech companies and parents should encourage digital citizenship learning to take place in informal education contexts with resources specifically created for this style of learning.

**Promote digital citizenship learning at ages 11–13.**

Young people in this age group have only recently started secondary school and are likely to be more impressionable to social media than older students, and often influenced by their older peers. Formal and informal delivery models must engage students at this age in order to build their critical thinking skills and resilience before they can begin to use social media according to tech company terms of services. As part of the government drive for greater industry co-ordination in producing effective initiatives, digital citizenship learning across all secondary school key stages must be ensured.

The Government’s guidance on relationships and sex education has made a promising start by outlining the broad internet safety topics that schools should cover at secondary school; now more detailed guidance should follow on the different skills, knowledge and behaviour that should be covered in key stages 3 and 4, starting with detailed instruction on how to use resources such as the UK Council for Child Internet Safety’s comprehensive framework ‘Education for a Connected World’.19

**Introduce education for parents and carers to ensure they are kept informed of the challenges their children face online.**

Parents and carers have a vital role in regulating the amount of time children spend online, as well as reinforcing both the positive and cautious messages about the digital world that young people learn at school or at youth centres. In order to do the latter effectively, they must be informed about the range of challenges that young people could face online, as well as being able to point them in the direction of positive online content. Charities and public bodies such as Young Minds and UKCIS have produced guides for parents and carers on the different types of social media that children use and how to support safe and responsible behaviour online, but it is not clear how many people these materials reach, or whether this approach is proving effective.

Alongside the current web-based, digital guide approach, CSOs, technology companies, the Government and educational institutions should work collaboratively to improve the quality of education that parents and carers receive on social media and online harms. An example of cross-sector collaboration is the NSPCC and 02 online safety partnership, which not only offers online support but also operates a helpline service as well as offering drop-in sessions to discuss online safety, which have engaged more than 11,000 parents in over 45,002 stores. Adult education programmes like this should receive further investment, not only to inform parents and carers of the range of online harms but also up-skill them in available digital tools that help them to understand and regulate their children’s online activity.
Endnotes

02 Ibid.