Children's Wellbeing in a Digital World

Year Two Index Report 2023

internet matters.org

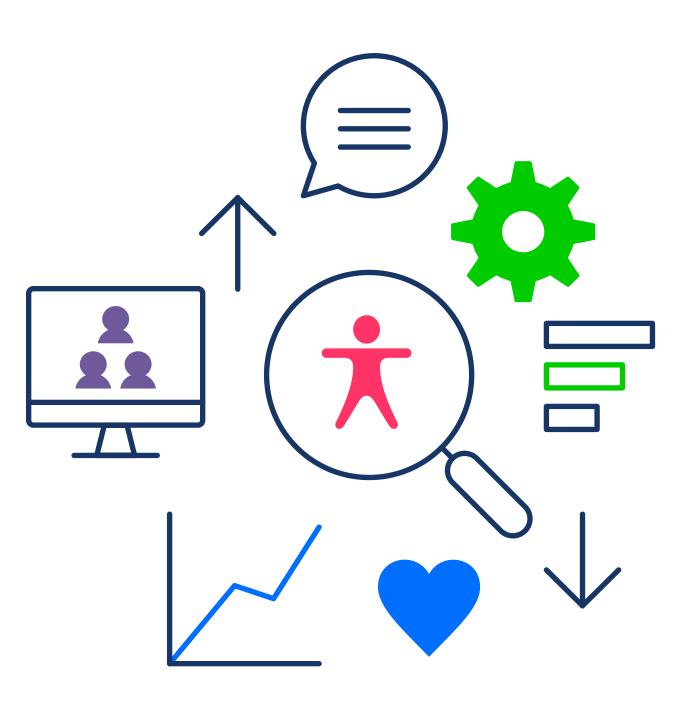
Developed with:

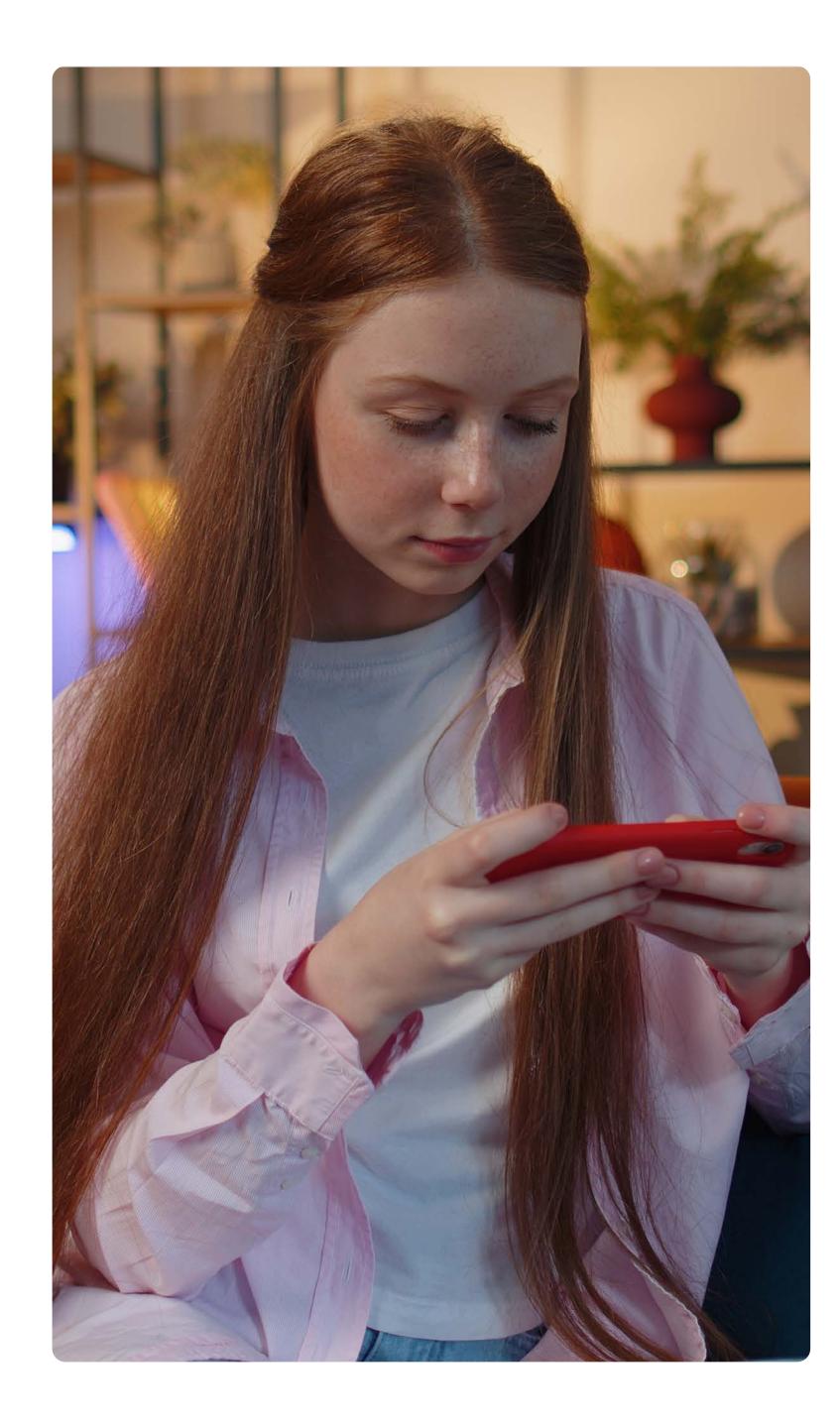
REVEALING REALITY



Contents

Foreword from Internet Matters	3
Summary	4
About the Index	6
How to read this report	7
Key findings:	9
The positive effects of being online have reduced for children	9
Active users are exposed to more negative experiences	14
Vulnerability shapes children's digital wellbeing	18
The family dynamic is a critical factor	22
Implications of the findings for policy and practice from Internet Matters	27
Appendix 1: Detailed method and analysis	30
Appendix 2: Changes made to the questionnaire in wave 2	31
Appendix 3: Dimensions and items	32





Foreword from Internet Matters

ow, more than ever, it is vital to understand the influence of technology on children's wellbeing, and to assess both the positives and negatives arising from the ways children use and interact with the online world. The landscape of children's media is constantly changing, with new apps, games and immersive technologies developing rapidly. Parents, carers and professionals supporting young people admit that they struggle to keep up. Furthermore, as we begin to embrace bigger and more expansive virtual worlds, the experiences and potential risks for children exploring these environments are even less well understood.

Our Children's Wellbeing in a Digital World Index was conceived to give us the ability to track the effect of technology on children's wellbeing year-on-year against this background of new developments in both the digital world and the lives of families in the UK.

For example, the past year has marked the first full academic year that most children have been attending schools in person since the start of the Covid-19 pandemic, when families

relied heavily on digital technology for learning and socialising at home. Public awareness of online harms is high as over the past 12 months, the Online Safety Bill has been progressing through the legislative process, with much attendant lobbying and press attention. At the same time, the inquest into Molly Russell's death represented a significant moment of reflection, investigation and scrutiny for the tech sector. The Index allows for the exploration of trends that emerge from the shifting effect of technology on children's lives and the concerns and perceptions of their parents and carers throughout this turbulent period.

Last year, the Index set a benchmark, indicating that screen use played a key role in impacting children's wellbeing, not just due to the length of time spent online but also, most importantly, what activities they took part in. Building on the work Internet Matters has championed to support vulnerable children online, the first wave of the Index also reported that children with SEND (special educational needs and disabilities), physical disabilities or challenges with their mental health experienced more of the negative impacts of digital technology on their wellbeing.

This year, as well as being able to see how the Index has changed one year on, and for which groups, we have built on these findings. We have explored the impacts on children who most actively participate online and, during a cost-of-living crisis, extended the range of vulnerabilities included in the Index to those experiencing financial deprivation.

We are excited to share the first set of comparative data from the Index. The findings from this research can be used to inform recommendations for parents, professionals and policy. These insights will continue to be a valuable input for Internet Matters in providing up-to-date advice for parents and carers on how to best manage and support their children towards positive outcomes from their online lives.





Summary

n early 2022, Internet Matters published the first Index designed to measure the impact of digital technology on the wellbeing of children in four areas of their lives – developmental, emotional, physical and social.

From surveys conducted with UK children aged 9-15 and their parents, the first wave of research provided a snapshot of children's digital experiences and their effects, which were both positive and negative.

This year's Index – populated with data from a second year of research with families – gives both an up-to-date illustration of the effects digital technology is having on children's wellbeing and provides the first set of comparative data indicating changes and possible emergent trends.

This year, to further strengthen the output, our survey included additional questions to explore wider areas of children's online experiences and allow comparisons across different types of families. These additional questions asked about online harms and broadened our definition of vulnerabilities to include the impact of financial disadvantage on children's experiences online.

The Index is based on responses to a detailed survey of 1,000 children aged 9-15 and their parents, conducted during summer 2022. In-depth qualitative interviews with six families allowed the researchers to explore many of the issues revealed by the survey data in greater detail and are used throughout this report as illustrative case studies.

The most striking year-on-year changes the Index reveals are:

The positive effects of being online have reduced for children since last year and just 3 of the 16 wellbeing metrics measured show a year-on-year improvement.

The positive impact of digital technology on children's developmental and social wellbeing are less this year than they were last year. This may point to the fact that children are less reliant on technology in those areas of their lives this year than in the year before when pandemic restrictions were in place.

Children report experiencing more negative impacts on their physical wellbeing than last year, which seems to be driven by the fact that due to pre-pandemic activities returning, this is pushing their technology use later into the evening, which is having more impact on their sleep.

The negative impact of digital technology on children's emotional wellbeing has lessened compared with last year, but only for boys. In particular, this seems to be experienced more by older boys, who reported experiencing fewer negative effects than last year.

However, 9-10-year-old girls appear to be experiencing more negative impacts of digital technology on their social and physical wellbeing than the same age-group last year. This may reflect the fact that girls are getting their first device and actively socialising online from a younger age than they used to be.

Parents reported that the positive effects of digital technology on their children are less than last year across all dimensions of their wellbeing.

Only one metric had improved according to parents, who reported a significant decrease in the negative impact on children's social wellbeing.

Key findings from this year's research include:

Children who were more active online – posting rather than passively scrolling – experienced more of the positive *and* negative effects of digital technology on their wellbeing than those who were less active.

Active users had higher scores in all dimensions of their wellbeing. In particular, the more time children spent online and on social media, the more likely they were to see violent content, be contacted by someone they didn't know, see things they thought weren't true and receive abusive or upsetting messages.

Active users also experienced more positives across all the dimensions of wellbeing – developmental, emotional, physical and social – compared with their less active counterparts.

Children in families facing challenging financial circumstances, and those who have disabilities, mental health issues or SEND, experience more negative effects from digital technology across all measured dimensions of their wellbeing than those in families without these challenges.

While these factors are likely to be influencing the findings in different ways or for different reasons, the outcomes for their wellbeing looked very similar.

Children in these families also reported a higher incidence of online experiences that are considered harmful, and that these experiences, when they occurred, had a worse effect on them than children in other families.

However, in keeping with the survey findings the previous year, vulnerable children also experienced slightly more positives than their peers without vulnerabilities. These areas included finding role models, support groups and people to look up to online and their online lives helping them to feel more comfortable being 'themselves'.

The degree to which parents were involved in their children's online experiences and activities shaped what impact technology had on their wellbeing.

Where parents and children in the same household gave similar answers to a range of questions about their use of digital technology and its impacts, the Index shows the children are experiencing more positive effects and fewer negative effects on their wellbeing. This is compared with families where there is a clear misalignment in parental awareness and understanding of how children's use of technology affects them.

In families where children and parents say they talk to each other about things that are important to them, children are experiencing more positive effects and fewer negative effects of digital technology on their wellbeing than in families who say they don't talk to each other about these issues as often.

These findings again point to the positive role that parents can play and the clear benefit that engaging in meaningful conversations has for children in relation to their digital life.

Only 15% of active social media users said they hadn't had any potentially harmful experiences online



About the Index

he digital landscape and children's experiences of it are evolving rapidly and as a consequence, it has become increasingly important to measure and understand the effects of digital technology on children's wellbeing.

Last year, Internet Matters produced the first
Children's Wellbeing in a Digital World Index.
The Index is derived from a <u>framework</u> developed
in collaboration with Internet Matters by Dr Diane
Levine and team at the University of Leicester.
This framework identifies four dimensions where
digital technology can have the most impact
(both positive and negative) on children's wellbeing:

- Developmental wellbeing realisation of cognitive capabilities and achievement of educational potential; managing financial responsibilities that come with maturation; personal growth.
- Emotional wellbeing healthy emotional development; ability to cope with stress and setbacks; spiritual development; development of thoughtful values and a positive outlook; space and opportunities to flourish; life purpose; autonomy; feeling successful.
- Physical wellbeing achievement and maintenance of healthy thriving; development of physical capabilities; using technology in physical safety; access/lack of access to supportive or accessibility technologies.

Social wellbeing – participation in wider communities including schools, clubs or societies; being an active citizen; ability to work with others; healthy interaction with online communities; maintenance of positive and sustainable online personae; managing the risks of grooming and exploitation; development and maintenance of good relations with significant people both online and offline; communication with people we know.

The accompanying report presented insights from the quantitative and qualitative research that had informed the development of this unique measure, which aims to determine the impact of digital technology on the wellbeing of children and families in the UK. Unlike a conventional survey, which provides a single snapshot of experience or views, an index enables comparisons of the impact of digital technology on different elements of wellbeing. And by conducting this research annually, we can see how these effects change over time.

This report details findings from the second wave of data gathered for the Index, exploring whether index scores have changed and for which groups, allowing some hypotheses to be drawn on how the changing digital landscape affects different children and households, and how these effects change over time.

This year's Index builds on last year's and has been compiled so that it is directly comparable. As such, it is based on answers to the same questions as last year's Index from a sample of the same size and profile: 1,000 9-15-year-old children and their parents.

In this year's survey, we also asked some additional questions that have allowed us to explore the effects of digital technology on children's wellbeing from fresh angles. New questions to categorise and characterise families have been added, as well as to provide data on a wider range of children's experiences online. These include questions on the potentially harmful online experiences children might have.

These additions have enabled exploration of additional aspects of digital wellbeing deemed important given developments in both the online and offline world, and contribute to a more comprehensive understanding of the landscape.

In addition to the 1,000 9-15-year-olds, this year's survey was extended to and answered by 138 16-year-olds and their parents. To ensure this year's Index can be meaningfully compared with last year's, the 16-year-olds' answers have not been included in this year's index. However, their answers will be included next year once there are two years of comparable data.

How to read this report

e describe what this year's data can tell us in isolation, including charts that illustrate findings which are interesting because they show differences between one demographic group and another for the same statement or dimension within the sample of participants comparable with wave 1 (1,000 9-15-year-olds). We also point to changes in scores in the Index from wave 1 to wave 2, using charts to illustrate many of these too.

Comparing wave 1 and wave 2 index scores

This year's Index outlines positive or negative movements in children's wellbeing compared with last year. The charts we use illustrate this.

The wave 2 scores are 'indexed' to the scores from wave 1, so an index score of 1.0 would mean there was no change from last year.

A wave 2 index score *below* 1.0 represents a *decrease* in that score compared with last year. That is to say, overall, children thought that a given statement had *less* of an effect on their digital experience than the previous year. The statements themselves may indicate a 'positive' or a 'negative' experience or impact on their wellbeing.

A wave 2 score *above* 1.0 represents an *increase* in that score compared with last year, i.e., overall, children thought that a given statement had *more* of an effect on their digital experience than the previous year. As above, the statements themselves may indicate a 'positive' or a 'negative' experience or impact on their wellbeing.

For example, the chart below shows the positive and negative index scores for each dimension for all children in wave 2 indexed to wave 1. Children's wellbeing Comparing W2 to W1 Index The wave 2 scores are 'indexed' to the scores 1.50 0.50 1.00 from wave 1. so an index score of 1.0 would mean there was no change from last year. When these changes from Developmental wave 1 to wave 2 are statistically 0.91 significant*, they are illustrated with a solid directional arrow. 1.01 A downward movement in the positive Other movements are illustrated **score** means that participants have by an outline directional arrow. **Emotional** reported a decrease in the benefits from technology use on this aspect of wellbeing 0 0.97 this wave compared to the last. A **downward** movement for the negative score means that 0.90 they are reporting fewer negative effects. Physical * Statistical significance 0 1.06 For this report, we set the confidence Conversely, an **upward movement** in the **positive score** means that participants are interval at 95%, a level of confidence which is widely accepted as a high level experiencing more benefits, and an upward of confidence. A confidence interval of movement for the negative score shows that more of the damaging effects of technology use 95% indicates that 95 times out of 100, 0.91 any relationship or differences observed are occurring this wave compared to the last. between two groups is the result of a 1.03 real effect rather than chance.

In another example, the chart below shows wave 2 scores indexed to wave 1 for the positive aspects of **social** wellbeing, including both the overall score and the scores for the individual statements in this category that make up that overall score.

Comparing W2 to W1 Index

Social positive dimension score



Wave 2-only indexing

As well as comparing this year's survey results with last year's, we also report on the answers to questions that we added into the wave 2 survey for the first time. In these cases, we can't report on trends year-on-year, but there is nonetheless value in considering and comparing how different demographic groups have answered these questions.

In these cases, the charts we use to illustrate the findings use the dimension score for the wave 2 sample of 9-15-year-olds as the baseline of 1.0 and the scores for different demographic groups are indexed to this baseline. When scores for a group are *above* 1.0 this indicates that this particular group of children reported that a given statement is having a greater effect on their experience than the rest of the 9-15 sample. The dimension scores themselves are comprised of exactly the same 'items' as the previous year.

A score of 1.50 means that particular subgroup's average dimension score is 1.50 times higher than the wave 2 sample's average. Wave 2-only scores that are statistically significant at a 95% confidence interval are indicated by a solid black star.

For example, the chart below shows the dimension-level scores for children who receive free school meals





Key findings: The positive effects of being online have reduced for children

ith two years of longitudinal data for 9-15-year-olds, index scores from wave 2 can now be contrasted with those in wave 1. To do this, children's and parents' scores from this year's survey have been indexed against scores from last year's survey. Overall, only 3 of the 16 metrics measured show a year-on-year improvement.

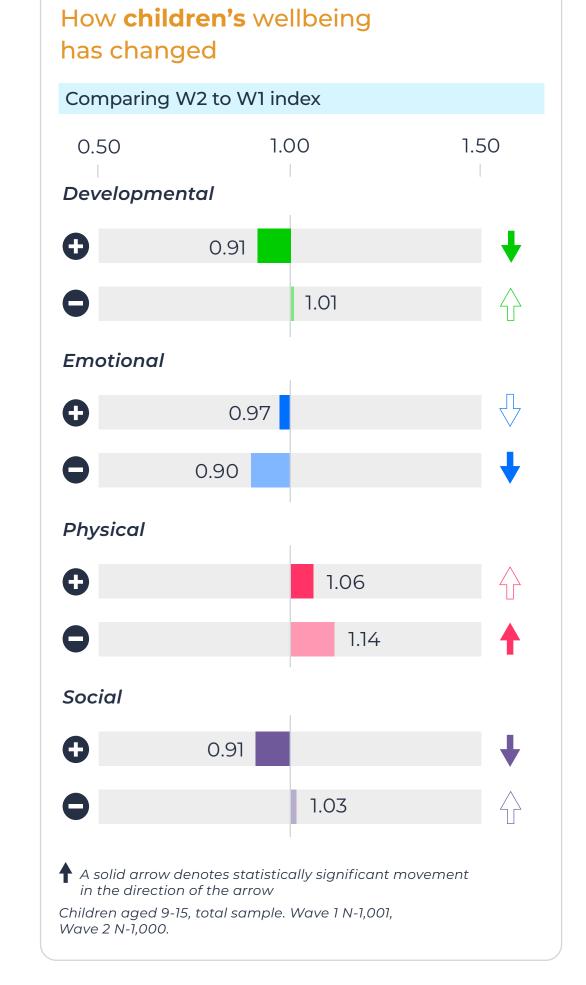
Compared with wave 1, children are experiencing fewer of the positive effects of digital on most areas of their wellbeing. These declines are statistically significant for **developmental and social wellbeing.**

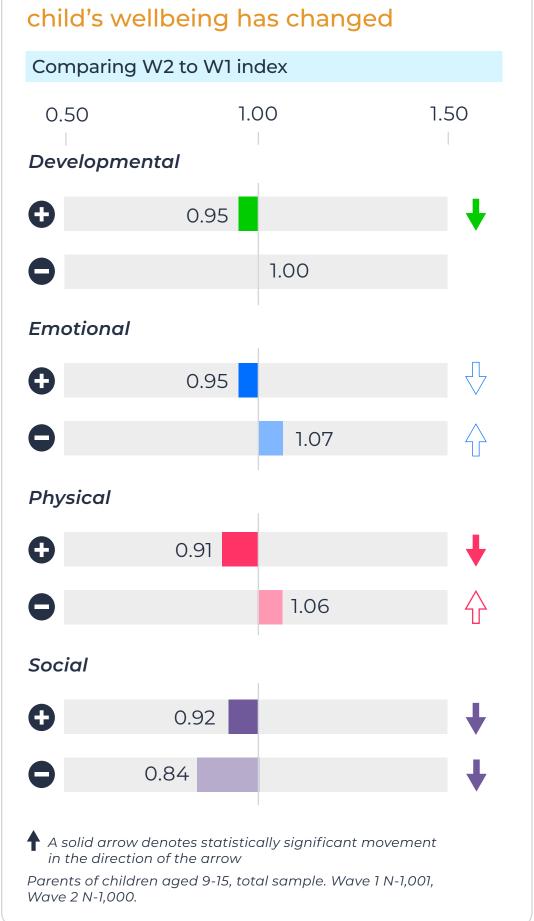
While they reported experiencing slightly more of the positives on their **physical wellbeing**, children are also experiencing far more of the negative impacts relative to last year.

The Index also highlights that children are experiencing less of the negative impacts on their **emotional wellbeing** compared with last year.

The survey captures the perspective of parents and the effect they feel digital is having on their child's wellbeing. In wave 2, they reported their children experiencing fewer of the benefits of digital across all dimensions of their wellbeing and felt their children were experiencing fewer of the negatives in just one area – that of their social wellbeing.

of children said they stay up late into the early hours of the morning on their devices





How parent's perception of their

Children reported fewer of the positive effects of technology on their developmental and social wellbeing

The positive effects of technology on children's **developmental** and social wellbeing have declined substantially across all age groups and demographics compared with last year, and this change is statistically significant.

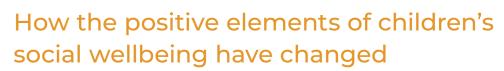
Key takeaways here include:

- They are less likely to report using technology to be independent and do things by themselves, get ideas for the future, learn about things that people might not teach them otherwise, and learn things for school.
- Children are less likely than last year to report that technology enables them to stay in close contact with friends and family they would not be able stay in touch with otherwise, meet people who become good friends, or that they use digital devices to feel part of a group.

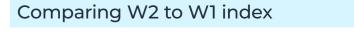
This does not necessarily mean digital devices are providing fewer benefits for children's wellbeing this year; it may be that tech is having a smaller impact on their overall developmental and social wellbeing.

Because the first year of the Index coincided with a period when children and their families were still experiencing various restrictions to combat the Covid pandemic, the changes in wave 2 could be at least in part due to the return to activities at school and to children's and families' social lives relying less on technology than they did during the pandemic. In 2022, most children attended school in person for an entire academic year for the first time since 2019. The idea that they may individually be using technology less for education and learning might make sense of the fact that the Index is reporting lower positive impacts of technology on these aspects of children's lives.

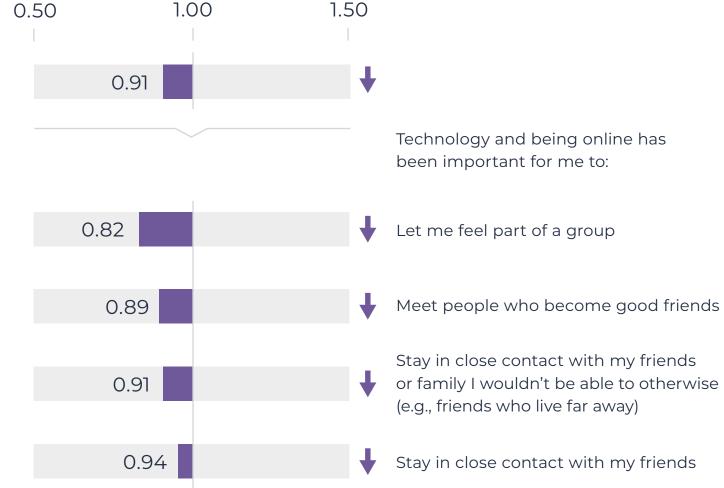








Social positive dimension score



A solid arrow denotes statistically significant movement in the direction of the arrow Children aged 9-15, total sample. Wave 1 N-1,001, Wave 2 N-1,000.

The negative effects of being online for children's physical wellbeing have increased

Compared with last year, there has been a significant increase in the negative impacts on children's **physical wellbeing** from using digital technology. This change occurred across the sample but was particularly prominent in various age groups and genders, namely 9-10-year-olds and 13-14-year-old boys; both groups displayed statistically significant increases compared with last year.

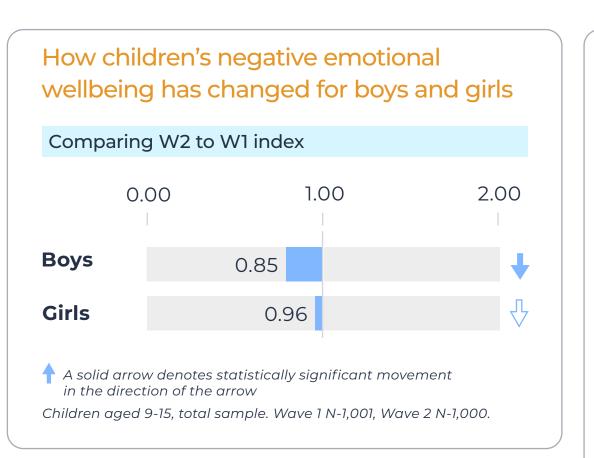
One question in particular was the most influential in this negative development. Both children and parents reported that children were spending significantly more time compared with last year staying up late on their devices, and that this was negatively affecting their sleep patterns. Our survey data indicates that there were no significant changes in the amount of time children in the sample were spending online from year to year, so it is a possible hypothesis that the times that children are able to be online have somewhat shifted since the return to schooling in person, meaning that children are spending similar amounts of time online but now at later hours than they used to. This is something that the survey will continue to track to assess whether it is part of a wider trend.

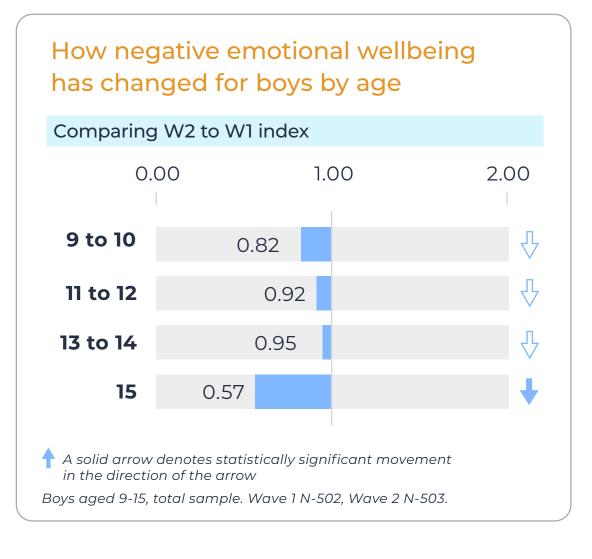
The negative impact on children's emotional wellbeing has lessened, but only for boys

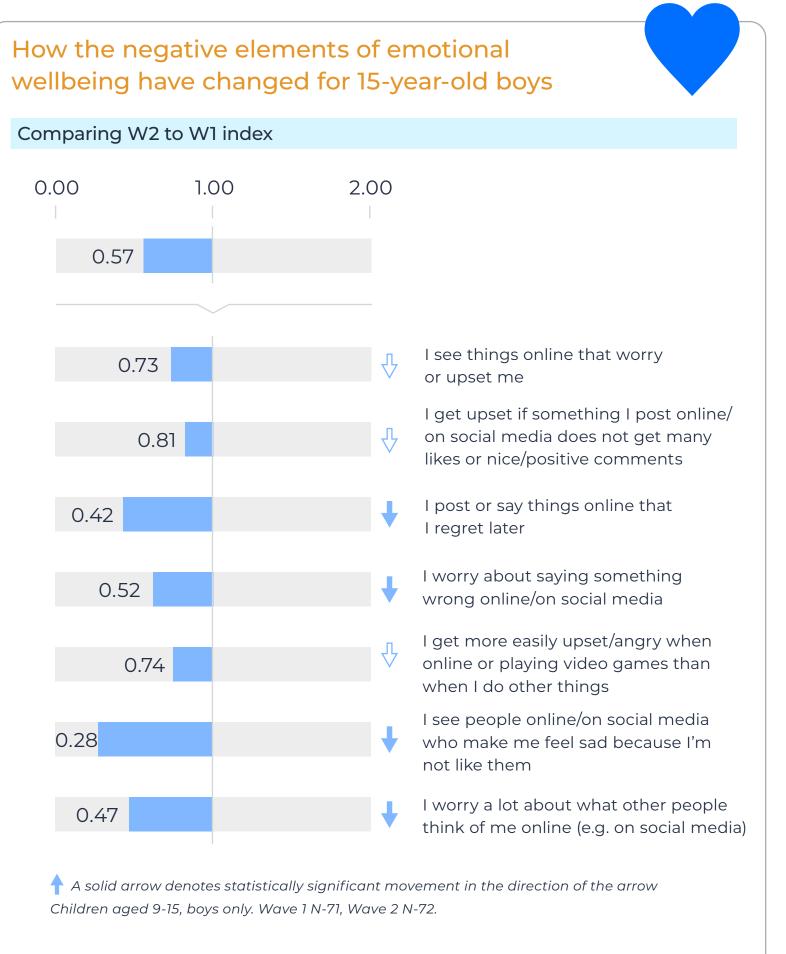
Our findings show that the use of digital technology appears to be having less negative impact on children's emotional wellbeing this year than the previous year. Across the whole sample, there has been a statistically significant decrease in the negative impact of digital technology on the **emotional wellbeing** of children from wave 1 to wave 2.

However, this change appears to be primarily driven by boys, and in particular by 15-year-old boys, for whom the data shows a statistically significant reduction in the impact of digital technology on their emotional wellbeing.

This year, they reported worrying less about what people say or think about them online, as well as comparing themselves less with others online. These changes could point to a lessening reliance on social media for teenage boys, or growth in confidence in relation to their online interactions. Boys in other age groups also reported reductions in negative impact on their emotional wellbeing, but these changes are not statistically significant.







When comparing the emotional negative dimension for 15-year-old boys against 16-year-old boys, who were included in the survey this year, the 15-year-old boys reported a markedly lower emotional negative dimension score. As this is only the second year of the Index, this finding will be one to track in future waves to see if it is repeated.

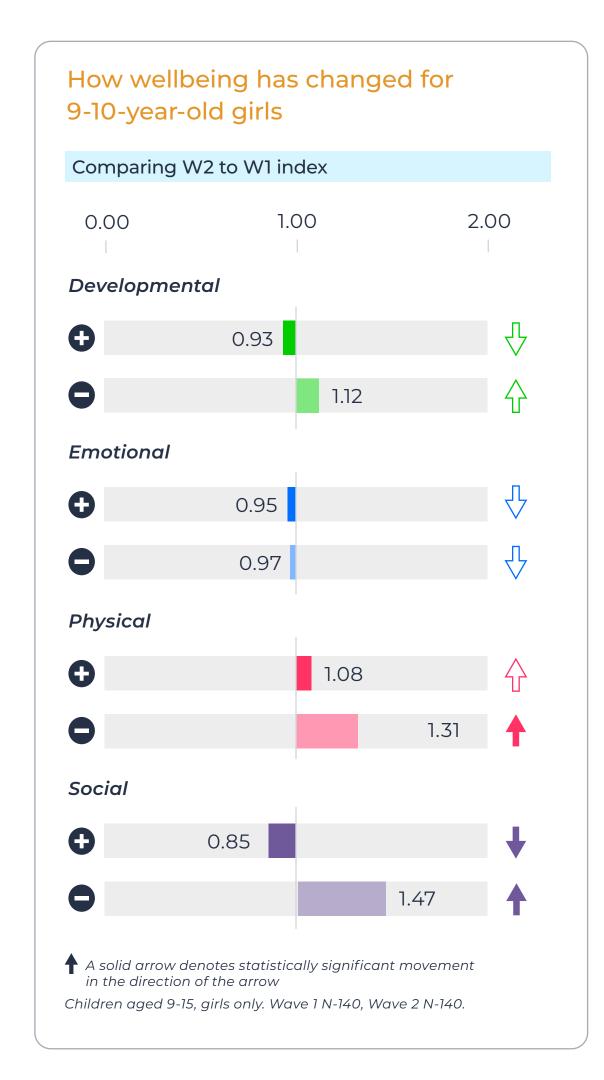
Girls aged 9-10 have experienced a dramatic increase in the negative effects on social wellbeing

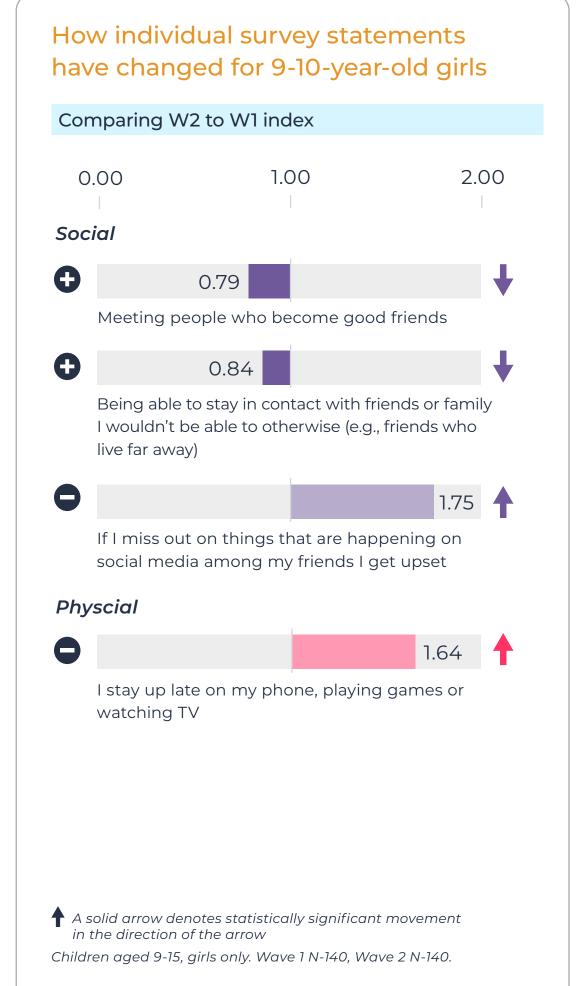
The first wave of the Index reported that girls were slightly more likely to experience the negative effects on social wellbeing than boys, which remains the case this year.

Younger girls especially are experiencing substantially less positive impact on their social wellbeing from using digital technology than the previous year, as well as a very large increase in the negative impact on their social wellbeing. They have also experienced a substantial increase in the negative impact on their physical wellbeing. All these changes in the three different dimension scores are statistically significant.

Across these dimensions, the girls' answers to the survey questions suggest what could be contributing to these changes. As we've already identified, compared with last year, children are less likely to report that being online helps them make friends and stay in contact with family and friends who they might not otherwise be able to, and as a result they experience fewer positives socially from being online. 9–10-year-old girls seems to be feeling this to a greater degree. They are also experiencing a greater negative impact on their social wellbeing predominantly because they are reporting that they get upset if they miss out on things that are happening on social media much more than last year.

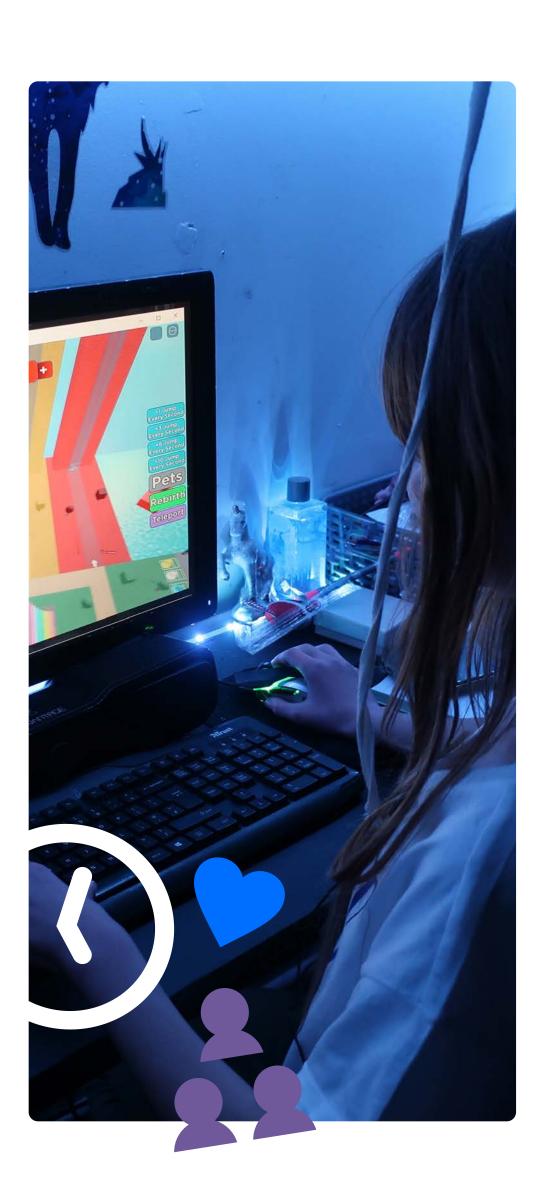
In terms of the negative effects on their physical wellbeing, this appears to be driven by a greater likelihood to report that they stay up late on their phones, playing games or watching TV.





There is evidence that the age at which children, especially girls, get their first smartphone and gain access to social media is getting younger every year. Ofcom data highlights that 60% of children aged 8-11 owned their own mobile phone in 2022, rising from 49% in 2021/22. Additionally, 64% of children aged 8-11 now use social media apps or sites compared with 44% in 2020/21¹. This is reflected in the data captured for this year's Index, which showed 56% of 9-10-year-olds reported using social media and messaging apps, including WhatsApp (48%), TikTok (41%), Snapchat (26%) and Instagram (15%), despite age restrictions.

We've seen across the Index this year and last year that the more time children of any age spend online and on social media, the more potential there is for it to impact their wellbeing for both good and bad. The fact that 9–10-year-old girls are now reporting this increased negative impact of technology to their social and physical wellbeing may point to this shift towards children gaining access to digital technology and social media from a younger age and the impact that FOMO (fear of missing out) has once children are introduced to these environments. As the survey progresses year-on-year, it will be important to track the impact that increased device ownership and social media use has on younger children.



Meet Laura, 9, who enjoys spending her time playing Roblox when she's not at school

Laura is a 9-year-old girl from a remote village in Northern Ireland who lives with her parents and her 18-year-old brother. Since the age of 6, Laura has been "in love" with playing Roblox and it has become her favourite activity. She spends a lot of time in her bedroom, where she has cleared space underneath her bunk bed to make room for her computer, which she describes as "her life". A typical weekday for Laura involves spending time on her phone in the morning speaking to friends before school and then after school, playing Roblox, starting after dinner at 6pm and sometimes playing until 10pm.

Laura plays Roblox with her online friends, describing times when they had stayed up all night, causing them to sleep-in late the next day and feel very tired.

"We stay up all night playing Roblox. We're obsessed. ... One time we stayed up for eight hours playing Roblox in the summer holidays. In the summer holidays, we usually do all-nighters.

We stay up all night playing random games – some we didn't even like. And we went to sleep at, like, 7am... We are very tired the next day."

Laura's Roblox hobby plays a big part in her social life, and she has made friends in the game, although she doesn't know any information about them outside of their activities in-game. She mentioned having several close friends on Roblox, one of whom she described as being her best friend since 2019. She chats to her for hours on Roblox in-game, and she has added her on TikTok, but she does not know any personal information about her or what she looks like.

"I make new friends online, but I wouldn't meet them in real life... On Roblox, you can have a maximum friend limit of 200. I used to just go on the Roblox menu and friend request everybody in the server.

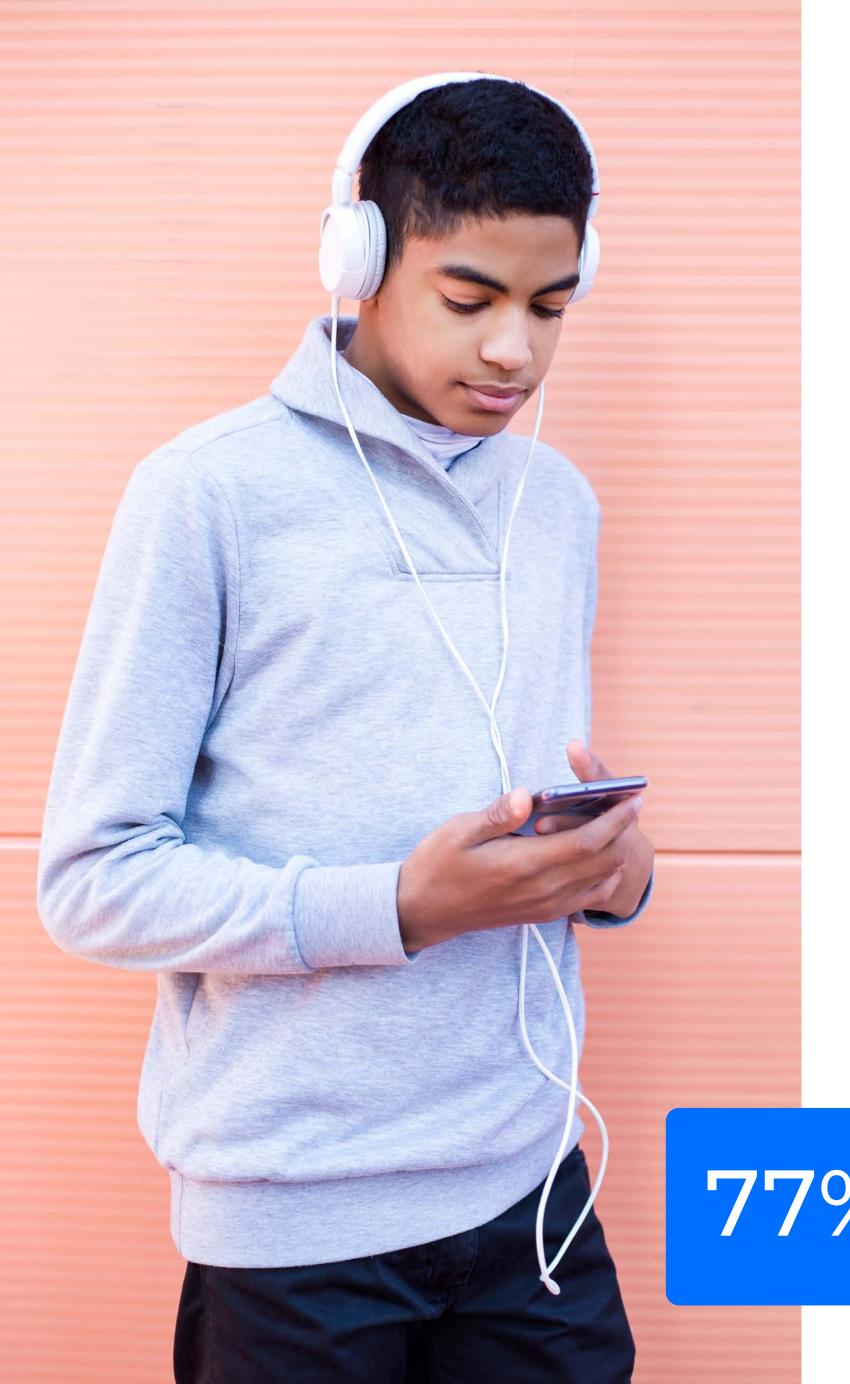
That's how I got a lot of friends, but then I started un-adding to meet people I actually talked to."

When asked whether she prefers her online or in-person friends, she could not decide, even though she has never met her online friends and does not know who they are. Once these friends stop playing Roblox, they lose contact – Laura described several friends on Roblox who she is no longer in contact with because they stopped playing the game.

"There's this girl whose display name was Summer.
So, I have my best friend Anna, then the other girl
called Summer, but I'm not sure where she went
because she's barely online anymore. Then there was
this other girl called Maisie, and then this other girl
who I talked to a lot – I'm not sure where she went."

Summary of the year-on-year changes

- The positive impacts of technology on children's social and developmental wellbeing have declined across all age groups and demographics compared with last year.
- The findings show that the use of digital technology appears to be having less negative impact on children's emotional wellbeing this year than the previous year. However, this change appears to be primarily driven by older boys.
- Younger girls are experiencing substantially less positive impact on their social wellbeing from using digital technology than the previous year, as well as an enormous increase in the negative impact on their social wellbeing. They have also experienced a substantial increase in the negative impacts on their physical wellbeing because of technology.
- The Index doesn't reveal the driving causes behind these shifts, although contextual evidence about children's lives online can help point to potential hypotheses -- for example, that digital technology may be playing a less important contributory part in their wellbeing now than during the restrictions of the Covid pandemic.



Active users are exposed to more negative experiences

experiences of online harms were included in the survey. These potential online harms ranged from slightly less severe incidents such as seeing things you thought might not be true online to much more potentially harmful events such as viewing content showing violence, experiencing interactions that were hurtful and bullying and seeing racist, sexist and homophobic content.

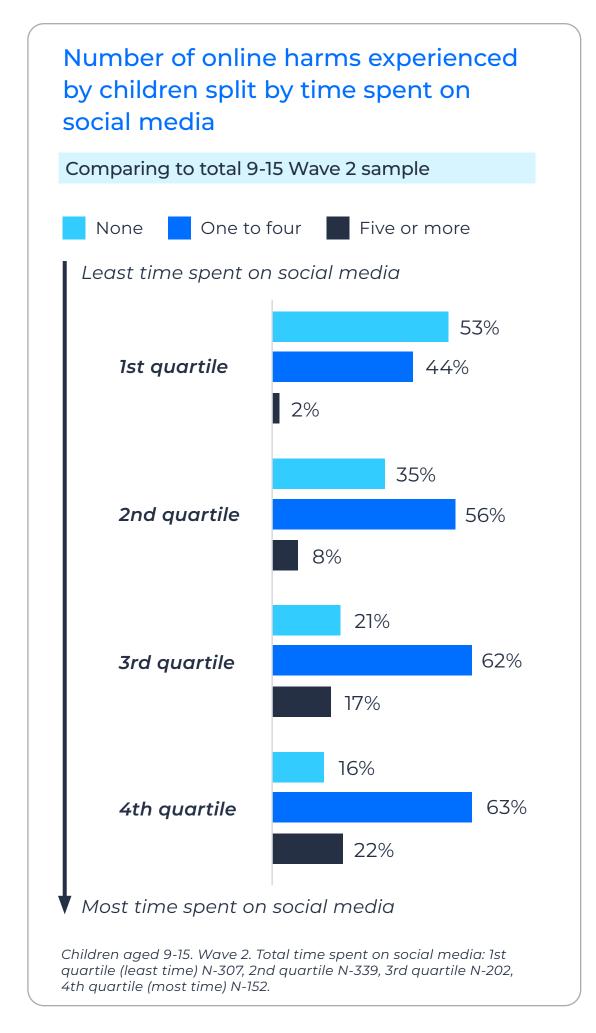
We also included questions to understand the impact both the children and their parents felt these experiences had on them. Some potential harms, such as seeing fake news, were generally reported to have a less severe impact on children, whereas occurrences such as receiving bullying messages or seeing content about self-harm were generally reported to have a far greater impact.

of children who've received online abuse said they found it scary

Over a fifth of the children spending the longest time online and on social media reported experiencing five or more potential harms online

Across the sample, the more time children reported spending online and on social media, the greater the number of these experiences they reported having. Of the children who spend the least time on social media, only 2% reported experiencing five or more of the online harm types, rising to 22% of the quartile of children spending the most time online.

In particular, the more time children spent online and on social media, the more likely they were to see violent content, be contacted by someone they don't know, see things they think aren't true, receive abusive messages from people they know in real life and experience bullying, abusive or upsetting messages or comments from people they don't know.



Children who were more 'active' online experienced more potential harms compared with 'passive' users

Of the children who were on social media, the 17% who were more 'active' users (posting and commenting a lot on social media) were even more likely to experience negative or potentially harmful online experiences than those who were 'passive' users or those who did not use social media.

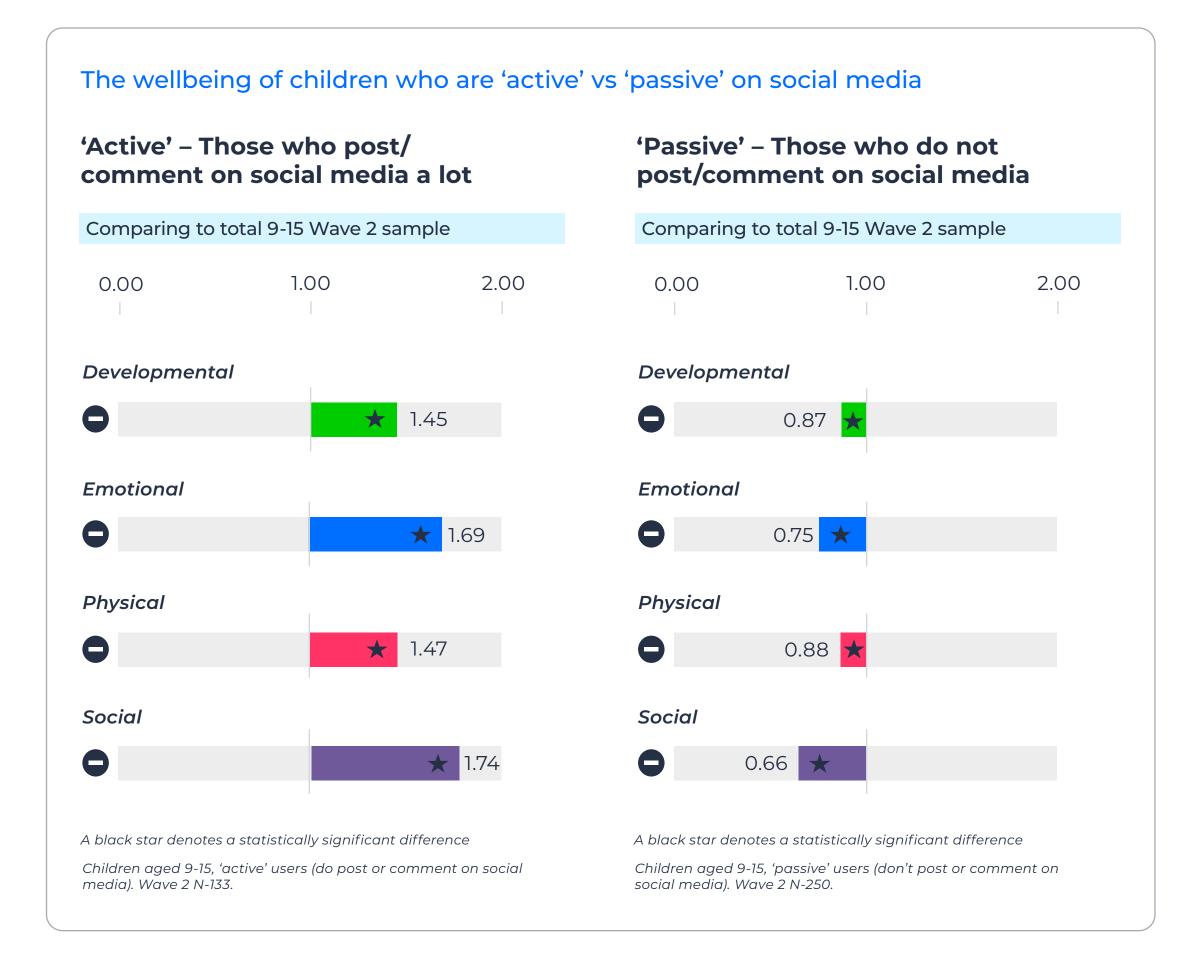
Of the passive users, 38% said they have not had any potentially harmful experiences, while that number drops to just 15% for active users. Similarly, 68% of active users have experienced between one and four potentially harmful experiences online (compared with 53% for passive users), and 17% of active users reported experiencing five or more potentially harmful experiences online, which is significantly higher than passive users (where it drops to only 9%).

They were also more likely to report that the event deeply affected them, with 37% of active social media users saying they were 'highly impacted', compared with only 18% of passive users.

The Index reveals that 'active' users show greater positive and negative effects on their wellbeing

Last year, we reported that children who spend more time online and more time on social media experience more negative impacts on their wellbeing. This year, we can see that this extends further to those who are most active on social media as four-fifths of active users fall into the highest two quartiles of total time spent online. Active users clearly show more negative impacts on their wellbeing due to technology use.

It is not surprising that children who spent more time online and were actively participating in social media environments were more likely to experience online harms, quite possibly because they had more opportunity to do so. However, there may also be other factors that explain the correlation between spending a lot of time online and experiences of harms; for example, potentially lower rates of adult supervision, awareness or restrictions placed on their activity.



▶ Guidance on how to read the report - wave 2 only indexing

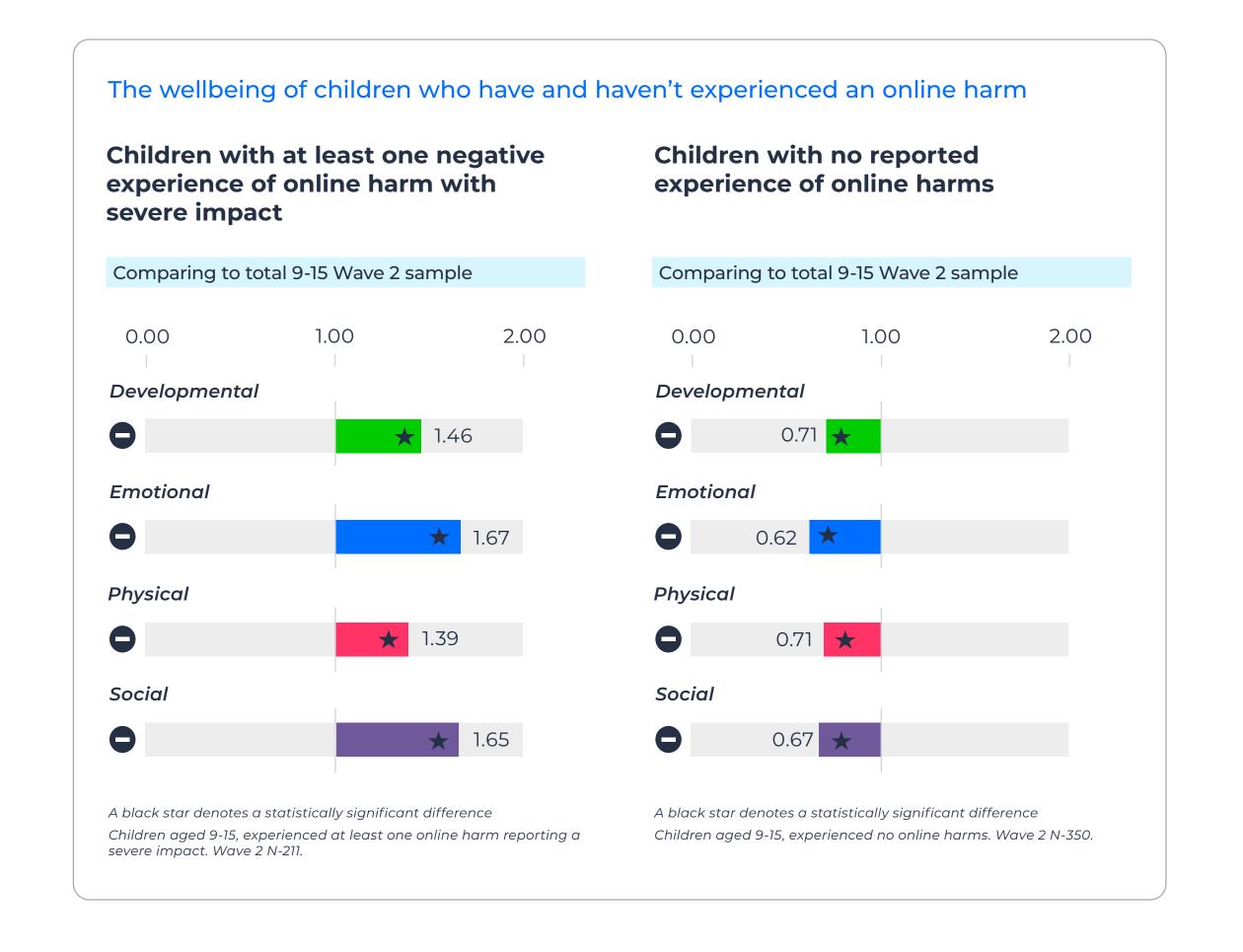
Experiencing just one severely negative event online meant children reported significantly more negative effects on their wellbeing

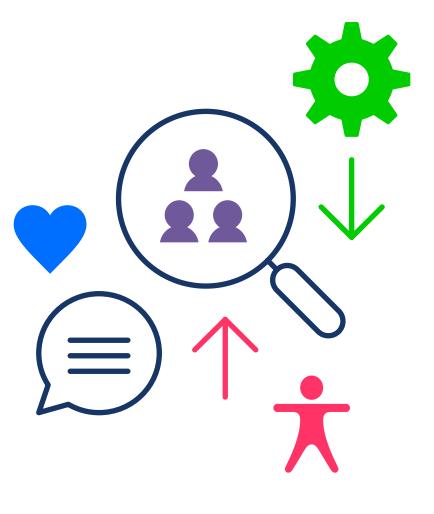
Children who reported at least one experience from the list of online harms and said that it had a severe impact on them appear to have significantly higher scores for all negative dimensions relative to the average for the 9-15-year-old sample. These scores are also drastically different from the negative dimensions scores of those who reported experiencing no harms at all, who show significantly lower negative dimension scores compared with the sample.

Experience of some harms appeared to have a greater negative impact on children's wellbeing than others. Children who experienced the events below reported significantly higher negative wellbeing scores across all dimensions:

- Seen violent content
- Been contacted by someone they don't know
- Received abusive messages from people they do and don't know
- Seen content that promotes unrealistic body types
- Seen racist, homophobic or sexist content

Furthermore, children who said they stay up late using their phone, playing games or watching TV were more likely to have experienced the above online harms compared with the rest of the sample.

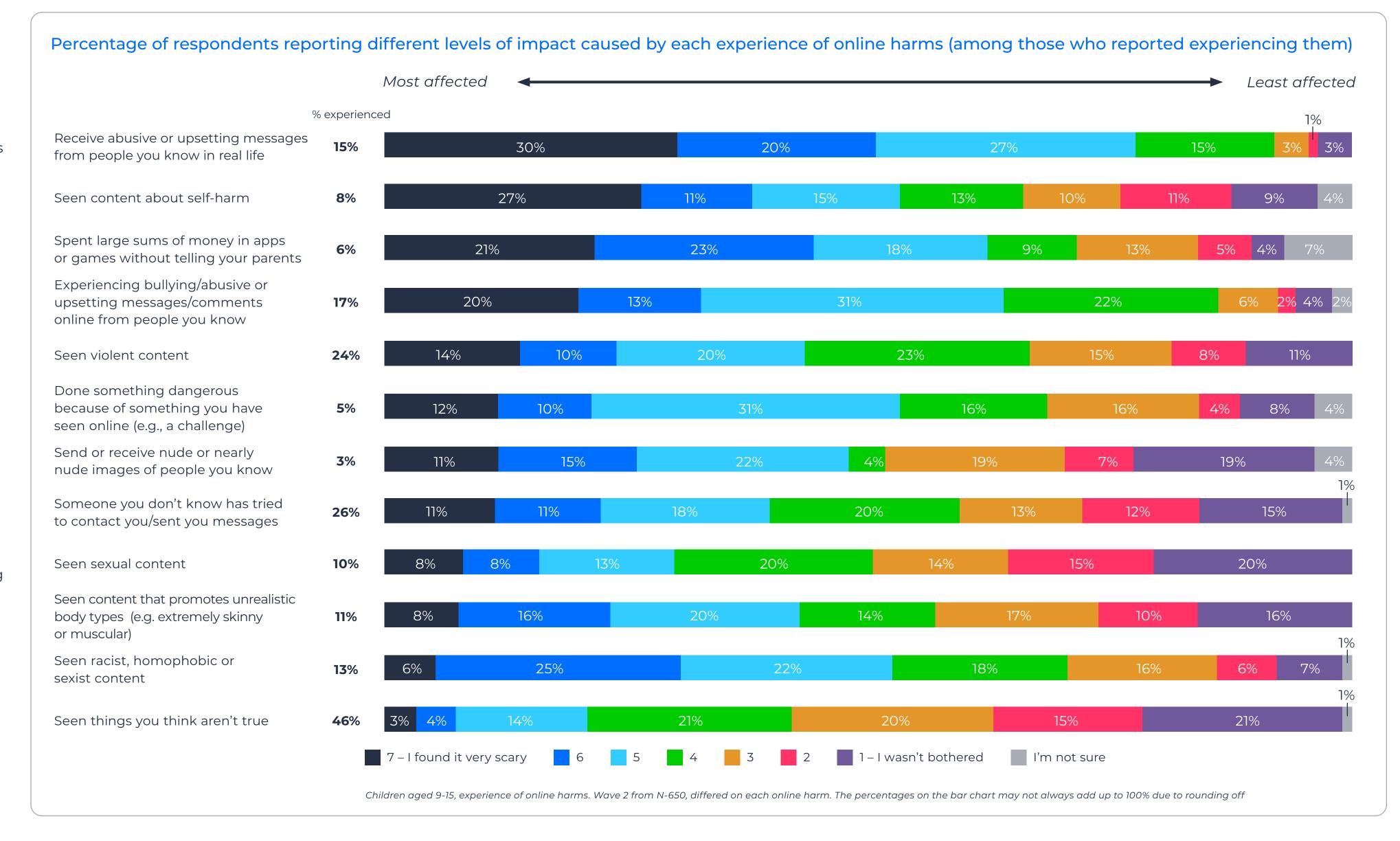


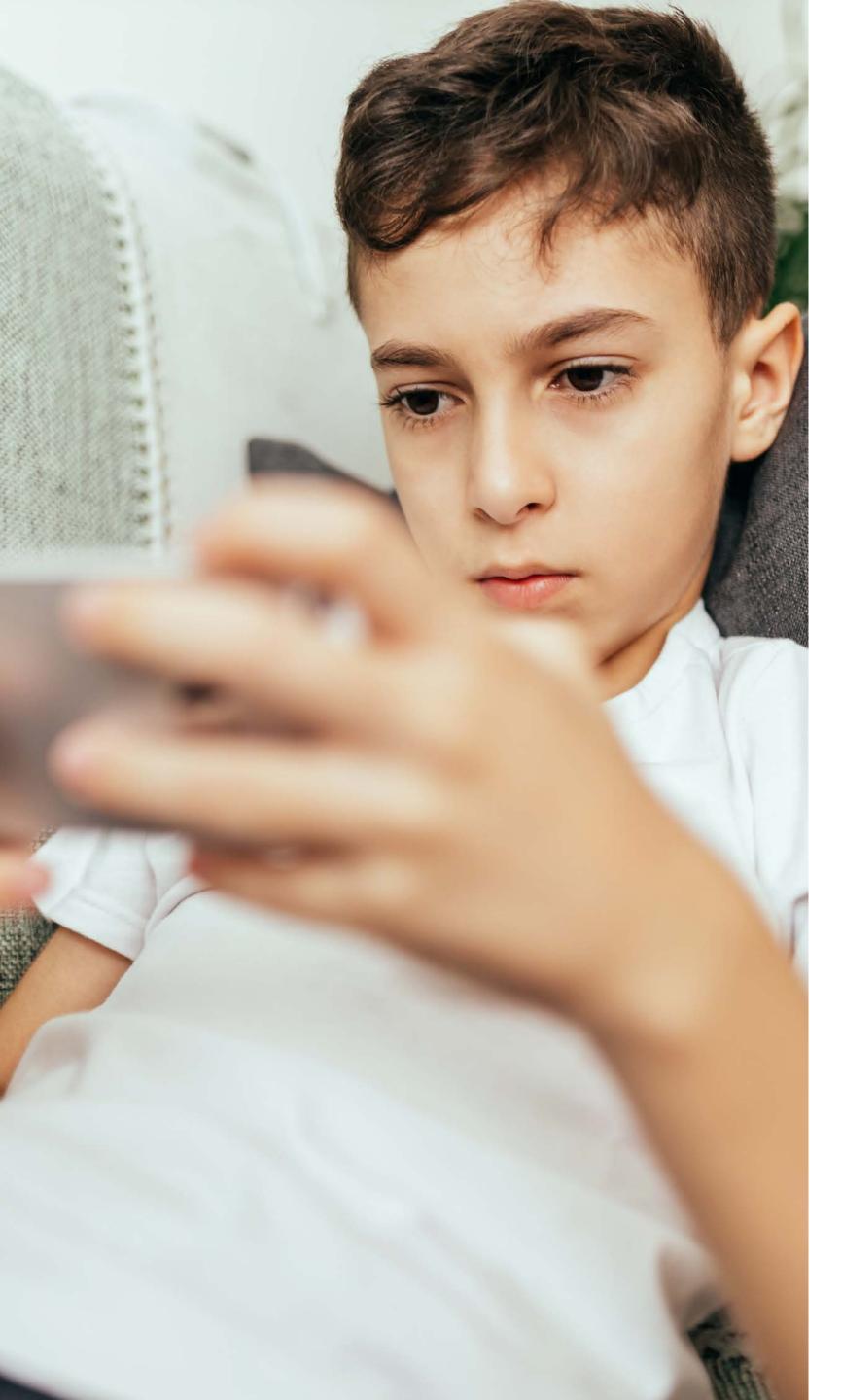


Children's and parents' perceptions about online harms generally aligned

Children's and parents' answers seemed to align on what they thought were the biggest risks online. While "seeing things you think aren't true" was reported as the online harm most commonly experienced by the children, it was also the experience they felt had the least impact on them. They reported that the most upsetting or scary experiences were: receiving abusive or upsetting messages from people they know in real life or from people they don't know; seeing content about self-harm; and spending large sums of money in apps or games.

This aligned with what parents reported: that while exposure to fake news was assumed to be the most common thing their children had experienced, it was the online harm they were least worried about. Receiving unwanted sexual attention from a stranger online, bullying and sharing inappropriate sexual images of themselves or others were ranked by parents who thought their children had experienced them as things that affected their children the most, and were the things that parents worried about the most.





Vulnerability shapes children's digital wellbeing

ast year, the Index demonstrated the effect of various inequalities between children in the UK. Children who were more vulnerable experienced greater negative consequences to their wellbeing as a result of the time they spent online.

Vulnerable children have higher negative index scores and face more potentially harmful experiences online

The first wave of the Index reported that children with SEND, physical disabilities or challenges with their mental health experienced more of the negative impacts of digital technology on their wellbeing. This trend continues this year, and these children are also more likely to have had potentially harmful experiences online, including seeing something they think isn't true, experiencing bullying or receiving unwanted sexual attention from a stranger. Compared with the 9-15-year-olds sample, vulnerable children who have had these experiences are more likely to report that these experiences have a severe negative effect on them.

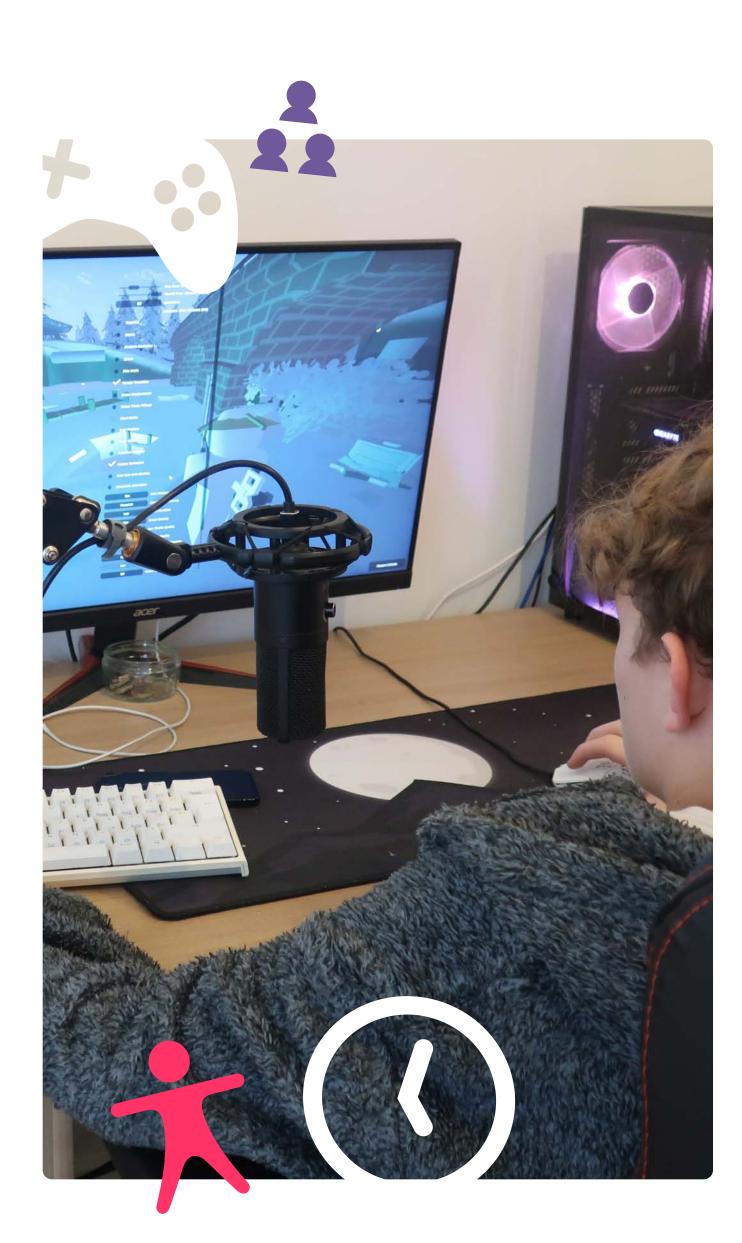
- They reported significantly higher negative physical consequences of being online, including staying up late on devices and no longer playing sport or exercising to be online, or reported that spending a lot of time online affects their physical health, such as concentration, eyesight or posture.
- In relation to social wellbeing, they also reported feeling significantly lonelier online than children without vulnerabilities, as well as feeling more upset because of unpleasant interactions they see online.

However, like last year, there are some positive consequences of being online for vulnerable children.

- They reported being significantly more likely to find someone to look up to or admire online, as well as reporting that being online has enabled them to feel more comfortable being themselves.
- In response to a new question added this year, vulnerable children also reported being significantly more likely to learn about experiences online which are different to their own and that they would not have come across otherwise.

Despite the more negative overall experience online for vulnerable children compared with non-vulnerable children, they have also reported experiencing some greater wellbeing benefits.





Meet Luke, 14, who has a number of vulnerabilities and spends a lot of his time online, which seems to have both a positive and negative impact

Luke is 14 and lives on the outskirts of Norwich with his mum, dad and his adult older sister, who is 21. Luke has several vulnerabilities. including ADHD, depression and skeletal dysplasia. He has been diagnosed with chronic low moods and has in the past experienced some severe mental ill-health, which has left a lasting impact. He also finds it difficult to sleep. He was really struggling at school, missing a lot of lessons and getting into trouble. So, this academic year, he moved to a school which can support his special needs and has been put on a part-time timetable – two hours at school most days and then an hour's work at home. Luke struggles to concentrate at school – he finds it hard to sit and listen and feels bored easily.

Luke has a few friends from his current and previous schools. He chats with them on Discord while he's gaming and, occasionally, on Snapchat but he describes himself as "not a social person" and rarely meets up with his friends in real life. Luke's skeletal dysplasia means he is far smaller than other children, and he talks about having been teased about his size.

He spends most of his time outside school playing on his gaming PC in what seems to be his own gaming room. In the two weeks before his interview, Luke had spent 159 hours gaming – roughly 10 hours a day. His family have rules about how and when he uses technology – he has to stop gaming at 10pm on school days and midnight on non-school days; there are restrictions on the home wifi and he's not allowed to take his phone to bed at night.

Luke usually spends a couple of weeks playing a particular game as much as he can and then moves onto another one. While Luke says he does enjoy the time he spends gaming, his digital usage and high screen time also appear to be having some negative impacts on his wellbeing and how he views himself.

"I'm a bit lost in most things, I don't know what to do most of the time, apart from when I'm gaming." He described himself as a 'no-lifer' – a term reclaimed by gamers who were insulted for playing games so much they had 'no life'. But he also struggled to see a positive future for himself. Asked about it, he said: "Well, I haven't really got one of those," adding that as he doesn't do much schoolwork or much outside school beyond gaming, he'd "probably end up working at McDonald's or something". Luke's mum worries about his future too but can also see that gaming distracts or frees him from some of his troubles.

"He is a bit more withdrawn and anxious when he goes out... he doesn't like being with people or crowds and has general anxiety about going out...When he's on computers, nobody can see he's small. I think when he goes out with his friends, he looks much smaller, whereas online he can be whoever he wants to be."

Children who receive free school meals show a similar profile with more pronounced negative effects

As well as exploring the impact of digital technology on children with SEND and physical or mental health conditions, this wave of the Index asked families more detailed questions around income and deprivation.

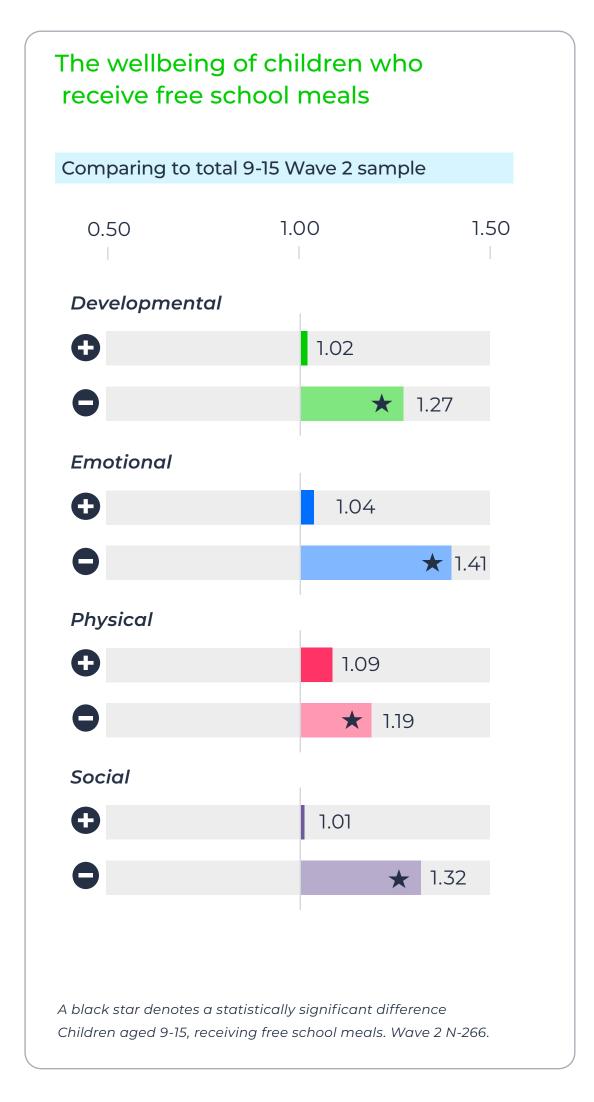
Children who receive free school meals reported experiencing more of the negative effects of being online, with these differences being statistically significant across most dimensions.

- The greatest difference is the effect on their emotional wellbeing, which appears to be mostly linked to index items related to the response they get to their activity online.
 For example, this group of children were more likely to worry they will later regret what they have posted online, or report being upset if they don't receive many 'likes' or positive comments.
- These children were more likely to report negative social effects of their online activity. Like children with SEND or those experiencing mental and physical difficulties, they were more likely to say that being online makes them feel lonely, and they turn down opportunities with friends in real life so they can stay in on their devices.

- They also score more highly across a range
 of measures that show the negative impact
 on their **physical** wellbeing. This includes the
 way it affects their energy levels and ability
 to concentrate, as well as the effect on their
 body in terms of eyesight or posture.
- It seems like this could be linked to their ability to feel in control of the way they use technology and experience the digital world. In relation to developmental wellbeing, children who receive free school meals are more likely to report that they continue scrolling after running out of new content on their social media feeds, not knowing what to do if they see something they don't like, and easily spending money online without realising all measures linked to 'control'.

Despite recognising they experience these negatives, this group were also more likely to worry about missing out on things online and choose to spend time on devices or online, even if this means turning down opportunities for in-person socialising.

However, children on free school meals did find some positives socially online. They reported being more likely to find groups or communities that could offer friendship and support, as well as meeting people online who became good friends.





said the model

of vulnerable children said they find role models and people to admire online



Meet Azi, 14, who feels lost when he doesn't have access to his phone

Azi is 14 and lives with his mum, Suliah, and 6-year-old sister, Abeni, in a high-rise block of flats in South London. Suliah is a single mum working from home as a customer service assistant. She says they get by, but money is a bit of a challenge.

Azi spends the majority of his time at home either scrolling – mainly on TikTok – or playing Fortnite and Rocket League on his PS5. Azi is often only allowed to play the PS5 at weekends as it is connected to the TV in the living room where Suliah works during the week. Azi wakes up at 9 or 10am at the weekend and immediately starts gaming on his PS5, continuing to play all day until midnight, when Suliah makes him go to bed, or sometimes even 3am.

Azi's average screen time statistics show that he spends approximately 15 hours on his phone per day, the majority of which is accounted for by TikTok, followed by YouTube and Discord.

Suliah wishes that Azi was less reliant on his devices for entertainment, but she doesn't let him spend time with friends or leave the flat by himself after school because she is conscious of the risks for a boy his age in the estate where they live. For the same reason, on weekdays, Suliah drops off and picks up Azi and Abeni from school in the car and they spend the majority of their time at home. On the weekends they do the same, occasionally visiting family nearby.

"He doesn't really hang out after school, and that's because of my preference – you know, what might be going on after school. Because we are in South London, and I just like to keep him safe at home so I know where he is and what he's doing. He's speaking to his friends online."

On rare occasions, Suliah has confiscated Azi's phone when she says his homework has not been up to scratch, but when she does this, she feels Azi doesn't know what to do with himself and spends a lot of his time sleeping during the day.



The family dynamic is a critical factor

n the first wave of the Index, differing household approaches and attitudes towards use of technology appeared to influence the index scores for children. In 2023, this was explored further to understand which parenting dynamics show the greatest differences.

The first wave included analysis of the extent to which parents and children had similar answers to the same questions in the survey. Last year, children whose answers differed most from their parents' perceptions of their online experiences scored lower on all positive factors. Last year's research also found that children who said their parents used devices when they were trying to talk to them were more likely to experience more of the negative effects of digital technology on their wellbeing. This emphasised the importance of positive engagement and parental awareness of children's online experiences.

These familial dynamics have been explored further in this second wave, as the survey captured a wider range of children and household behaviours and characteristics, including how devices are used within the household, how much parents feel they about what their children are doing online, what kind of limitations or monitoring they put in place, and whether they see themselves as generally more strict or lenient. It's also been a chance to further analyse the degree of alignment in child and parent perspectives of the impact of technology on wellbeing.

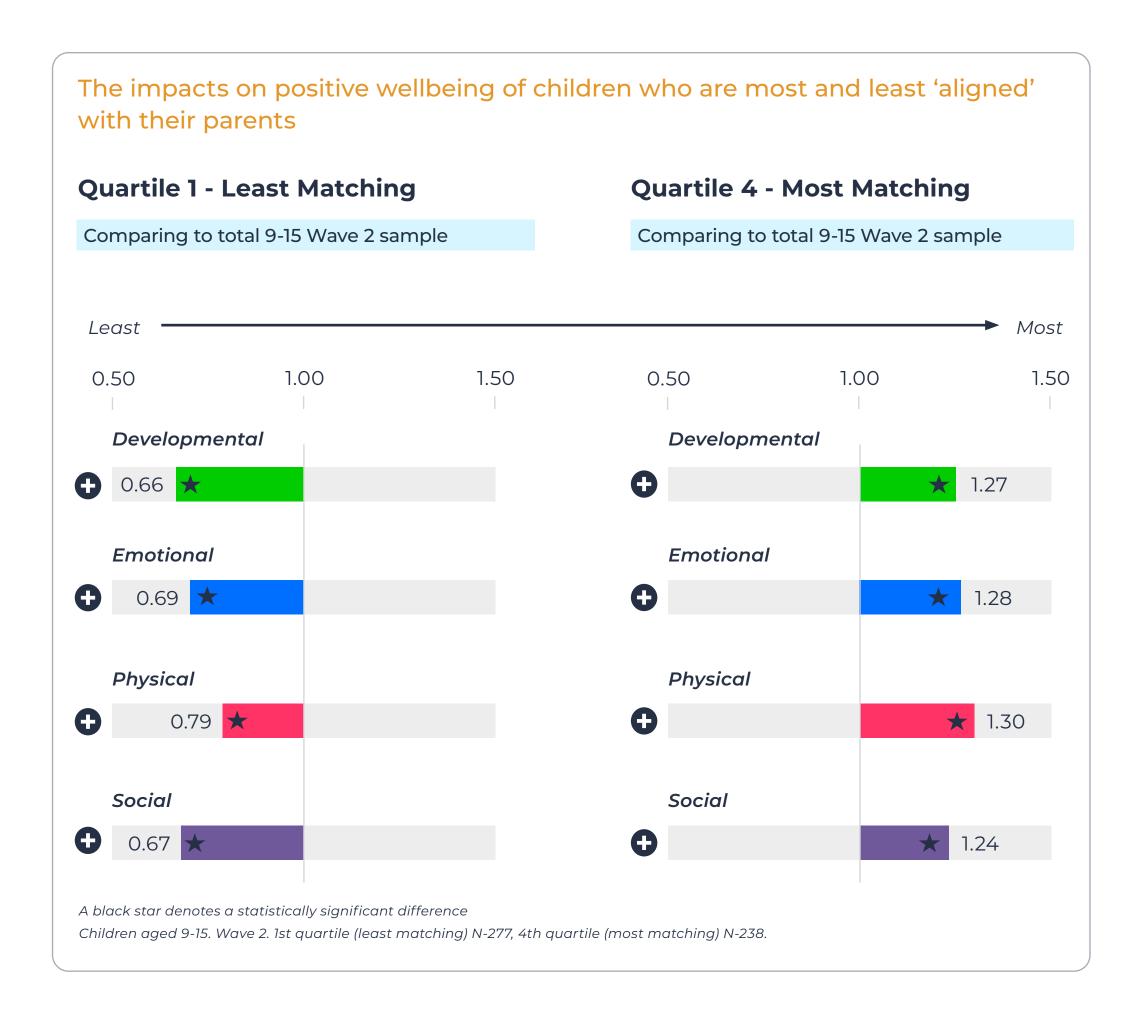
Children whose responses align with their parents' experienced more of the positives and fewer of the negatives of being online

The survey asks questions of both parents and children, allowing analysis on the extent to which parent and child perspectives and responses are the same or 'match'. This can then be used to segment the sample, allowing the comparison of index scores between children who have a greater or lesser degree of alignment with their parents.

Children whose index scores aligned with their parents' experienced notably more of the positive impacts of digital technology, with statistically significant differences seen in each dimension of wellbeing. This is especially true for using the internet to learn new sport skills, using apps to help them stay healthy, meeting people online who become good friends, finding people online they admire and look up to, feeling more comfortable with being themselves due to being online, and enabling them to find new hobbies.

80%

of parents feel that being online has been important for their child to learn new skills



How families use digital devices within the home influences wellbeing outcomes

As with the first wave of the Index and highlighted in our subsequent report, <u>Digital Parenting</u>, wellbeing scores were affected by home environment and household dynamics around technology. Families were asked to describe how they used devices in the home including how much they use devices together and separately, each on their own devices.

In households where parents reported the family being more likely to use devices separately, children experienced more of the negative effects and fewer of the positive effects on their wellbeing. This was especially true for items such as being less likely to use online sources to get ideas for their future or learn about topics for school, as well as feeling the negative physical impact of spending lots of time online.

There is considerable overlap between households that report using devices separately and report using them together. There's also overlap between these families and children who report spending more time online. This suggests that rather than two distinct 'types' of families, those who use devices together versus separately, there are instead households where there is more or less device use altogether, together *and* separately.

This showed different outcomes for their children's wellbeing. Children from households where there was more overall device use experienced more effects of the digital world on their wellbeing, whether positive or negative. This seems to align with the finding that children who spent more time online themselves experience more of the positive and negative impacts and this was especially true of their social and emotional wellbeing.

In contrast, children from households where their family used devices less overall reported experiencing smaller negative effects on their wellbeing, with differences in their emotional, social and developmental wellbeing being most pronounced. This seemed to be driven by children in these families who are spending less time online being less likely to worry about what other people think of them online (e.g., on social media), to scroll through the same things on social media multiple times or to turn down opportunities to meet with friends so they could stay in on their phone, computer or games console.

Meet Riley, 13, whose family often spend time in separate rooms on their own devices



13-year-old Riley lives with his family in a village where he describes there being very little to do. Riley enjoys being active and plays football four times a week. However, when he isn't playing football or at school, he and his family spend a lot of their time at home. Here, Riley and his family will often be found in separate rooms, doing their own thing on their own devices, generally only seeing each other in passing or for the occasional "fridge stop".

Riley enjoys gaming. He will spend around four hours a day outside of school hours on his Xbox or phone, and his brother will spend as much as eight hours a day on his devices outside of school hours.

"If I'm not on outside, I'll be in the house on my phone or on my Xbox, because I don't usually get on the TV very much, because there's always someone sitting in there on it. So, it's usually when they're out I get to finally use it...In the living room, usually there'll be my dad on the sofa watching TV, potentially my sister on her phone... My mum uses Facebook guite a lot, and then on the TV she watches Netflix... around the house, my brother usually just stays in our room and makes his music all day. If he's not doing that he'll be on a call with his cousin. He'll come downstairs once in a while and pick up his selection of food his daily fridge stop."

Meet Michael and Hayley who have strict rules around technology for their three children and often play games on their devices as a family

Michael and Hayley are parents to three children aged 11, 7 and 4 who are all very active and do well at school. They don't see themselves as strict parents but admit to being stricter around technology, as Michael is keen for his children to have plenty of hobbies and excel academically – which he sees as linked to them not spending a lot of time on digital devices.

When the children do use devices, quite often they'll end up playing games together as a family. At the moment, FIFA is a firm favourite (Michael thinks inspired by the World Cup), but during the Covid lockdowns, it was Roblox they would play together.

The house has certain rules around when and how the children are allowed to use technology. For example, after school, any homework must be done first and then each of them has to read for 15 minutes before being allowed to use any device.

Their daughter, 11, doesn't have social media but doesn't mind because she is able to speak to her friends on WhatsApp groups. She's hoping that she'll be able to connect on Roblox with them - at the moment, she only has her brothers but as it's her favourite thing to do on her phone, she'd like to play with her school friends too.

Michael says he would be happy for her to use social media and mentioned she used to have Snapchat to speak to her cousins and send funny photos – but became bored with this so deleted the app. She hasn't asked for Instagram or TikTok yet, and currently prefers YouTube. She loves drawing and arts and crafts, so often turns to YouTube for inspiration. Her recent favourite is an account that does step-by-steps of how to draw different pictures. She finds the videos hard and the drawings difficult to replicate but says that she wants to keep doing the more difficult ones so she gets better more quickly.



Open parent-child relationships create more positive outcomes than monitoring or setting digital limits

There are many approaches parents can take when it comes to their child's use of digital devices and technology, with many feeling like they don't know the 'right' thing to do.

In the survey, parents were asked to identify themselves in terms of 'strictness' around general parenting and around technology specifically. While acknowledging that a parent's own assessment of their parenting style is subjective, surprisingly, children's wellbeing scores didn't differ notably depending on whether parents saw themselves as 'strict' or 'lenient' or somewhere in between.

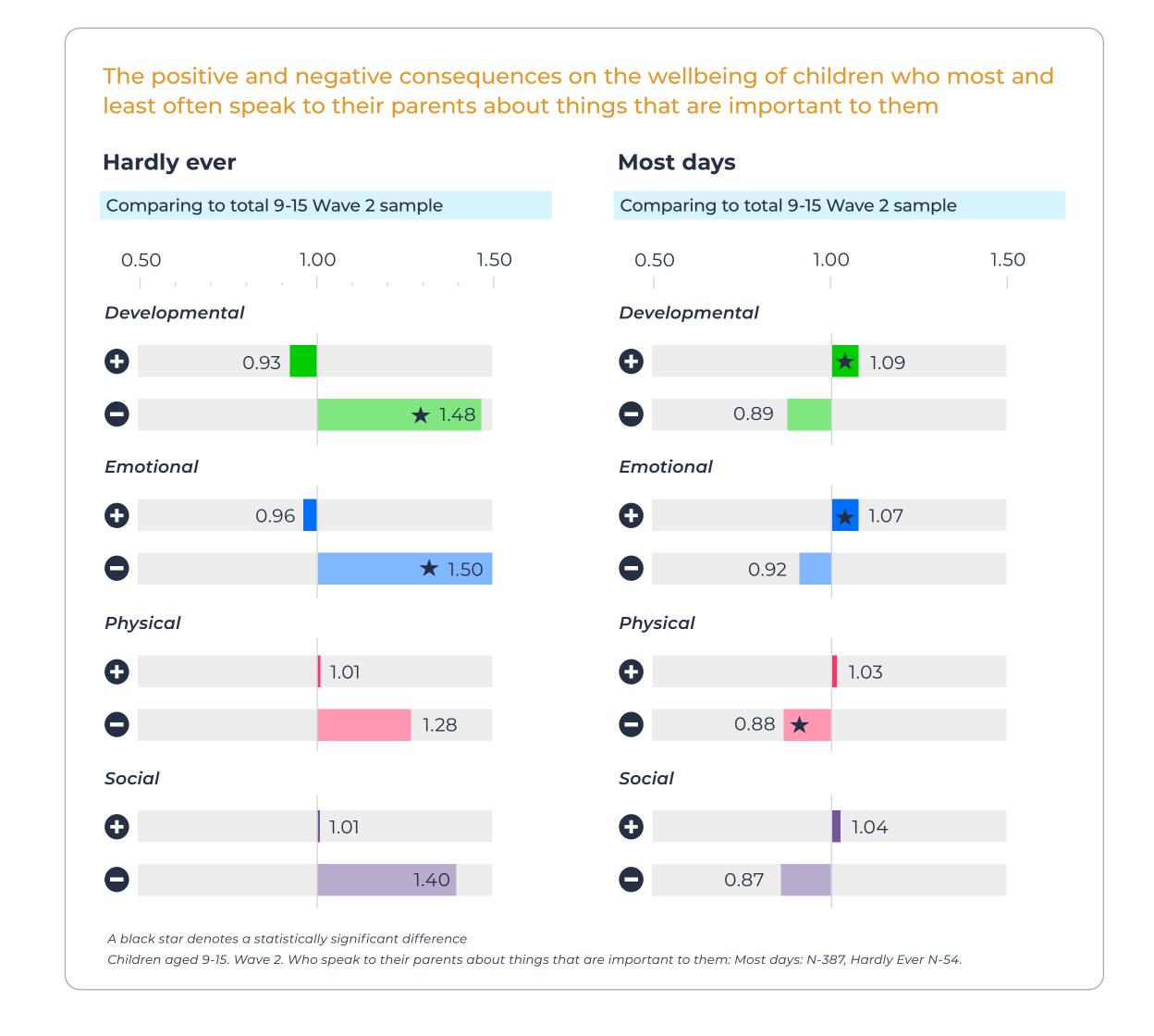
The same was true for how confident or aware parents felt about what their child does online, what they see on social media, or even how confident they feel about knowing how much time their child spends online.

Starker differences can be seen when household dynamics are analysed from the child's perspective, segmenting the sample by how often children reported speaking to their parents about things that are important to them for example.

Children who reported doing this least in the sample ('Hardly ever') experienced more of the negative impacts on their wellbeing, seeing statistically significantly higher negative impact on their emotional and developmental wellbeing. These negative impacts include feeling they more easily spend money online without realising it and worrying about saying something wrong online.

Inversely, children who reported speaking to their parents most days about things that are important to them experienced slightly more of the positive impacts. They were also more likely to report understanding what personal information they should and shouldn't share online.

The Index suggests that what makes the difference for children is not about being strict or setting limits. Instead, the Index scores show that for children whose responses are more aligned with their parents and where they are talking more often with their parents about what is important to them, they are more likely to experience more positives and fewer negatives of digital use on their wellbeing.



Meet Rachel, 41, mother of Lily, aged 13, who feels conflicted about giving her daughter a smartphone

Rachel is 41 and has a daughter, Lily, aged 13. Rachel has allowed Lily to have a smartphone since she was 9 years old but feels conflicted about this decision. Rachel and Lily live in the countryside, meaning that Lily is far away from her school and her friends, making it difficult to spend time with them. This was a particular concern during the Covid lockdowns when Lily had just begun year 7 and didn't yet know many other students at her school. Lily's phone gives her the opportunity to stay in contact with her friends and maintain those essential relationships.

However, Rachel has always been conscious of the possible problems that can come with using a phone at a young age. Because of this, she has always made sure she uses the parental controls on her own iPhone to monitor Lily's screen time. Rachel uses this feature to set time limits for certain apps and turn on 'downtime', which limits Lily's phone to being used as her bus pass and for staying in contact with her parents. Lily finds her mum's use of screen time monitoring frustrating and says that no one else her age has parents who use it anymore.

Rachel also worries about the impact that Lily's constant use of her phone is having on her and is concerned that Lily might experience bullying on group chats, see content she might find distressing and learn about 'faddy' diets. She is

trying to find the balance between giving Lily the freedom to use her phone and monitoring her activity - a balance she admits she's struggling to find. Rachel has tried talking to Lily about these topics and hopes that this will encourage her to come to her if she experiences anything upsetting.

"I've tried to talk to her about this... I've gone in there trying to get the password or to look at her phone, but I find it very hard; it breaks down the trust... if I can just monitor a little bit and then just trust her, trust that she'll come to me – which she had done in the past – but I don't know, it's really hard, I really struggle with it... sometimes I think the only answer would be if I could mirror her phone, I should be able to see all of it... I'm sure my mum used to go through my diary; it's kind of the same thing."

Rachel's experience of the tension between appropriately monitoring her child's digital behaviour while maintaining trust likely reflects the experience of many parents.

This suggests that parents might benefit from support on how to have these conversations and guidance on finding a good balance.





Implications of the findings for policy and practice from Internet Matters

ur first wellbeing report revealed some compelling insights into children's digital lives. This second year of research goes further and demonstrates a true strength of the Index: its ability to provide longitudinal comparisons over time.

The report has shown that there are many points of continuity from last year, but there are also some key differences. While two years of data is insufficient on its own to identify definitive trends, wider research (including from Internet Matters) supports many of our findings. It is vital that policymakers, industry, parents and professionals are prepared to respond accordingly – especially since it appears that children's digital wellbeing could be worsening.

This section presents our thinking on what needs to happen to protect and enhance children's wellbeing in a digital world.

Supporting parents

First and foremost, this report reaffirms the critical role played by parents in supporting children in their online lives. We can again clearly see in the Index the positive role that

parental awareness, understanding and openness with regard to their child's digital activity can play. In summary, what parents do matters. Therefore, the clear priority must be on ensuring that parents have the skills, knowledge and support they need to fulfil this role effectively. Not only does this benefit children, but it also has an amplifying effect in improving the online safety and wellbeing of parents themselves.

Part of the answer is top quality advice and guidance. At Internet Matters, we are focused on doing everything we can to ensure that our resources meet parents where they are and keep pace with changes in the technology landscape. Our investment in research like the Index enables us to do just that.

In recent years, the Government and regulator Ofcom have brought forward strategies aimed at providing greater support and direction to the media literacy sector. The sector is benefiting from many aspects of these programmes, including deep dives on evaluation and the commissioning of pilot projects to test what works. But the real test will be how this work can be both scaled and embedded, in the long term, against a backdrop of funding

volatility. Our concern is that there needs to be a sustainable offer for the population at large, and especially the nation's parents, for the strategies to have real impact.

Joining up parents and schools

A focus on parents necessarily requires a focus on schools. Given the important role schools play in supporting children's online safety and resilience via the RSHE (Relationships, Sex and Health Education) and computing curricula, it is important that teachers and parents work together and take a common approach.

Children need to be able to learn about online risk and harm in digital spaces, developing their digital skills and critical thinking. Learning platforms like our own Digital Matters enable them to do this with added support and guidance from their teachers. It also provides resources focused on parents, to bridge the gap between school and home. This is in line with key guidance for schools from the Department for Education, which rightly emphasises the need for schools to engage parents (e.g., RSHE guidance² and Teaching Online Safety in Schools).³

- 2. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1090195/Relationships_Education_RSE_and_Health_Education.pdf
 - 3. <a href="https://www.gov.uk/government/publications/teaching-online-safety-in-schools/teaching-safety-in-

At a policy level, responsibility for children's media literacy is split between several government departments and agencies, with the Department for Education taking the lead on in-school provision and DSIT (formerly DCMS) and Ofcom primarily dealing with outof-school provision (e.g., libraries, youth clubs, etc). There is a real question about whether this is the best way of meeting the needs of parents, children and teachers. It is very likely that a single strategy dealing with the full spectrum of in- and out-of-school provision would be the most effective (and efficient) way of supporting children's media literacy – but this would require significant re-organisation of responsibilities and teams. In the absence of this re-organisation, Ofcom, DSIT and the Department for Education should look to further develop their communications with each other, ensure consistency of approach and reduce duplication of work and effort.

Wellbeing by design

Children's online safety cannot and should not be left to parents, teachers and children themselves. This point is particularly important in the current climate, when parents have so many challenges beyond online safety and wellbeing to contend with – not least the current cost of living crisis and the challenges facing children's broader mental health. Schools, too, can only ever dedicate a small amount of time to supporting children in their online lives.

Furthermore, this report has once again shone a light on the fact that vulnerable children's experiences of the online world are much worse than their peers. This year, we have seen how vulnerable children are more likely to encounter harmful experiences online that go on to have a severe impact on their wellbeing. This is in keeping with previous research from Internet Matters, which has shown that children in the care system, young carers and those with other vulnerabilities are at heightened risk of experiencing harm online. Some of these children do not have parents in their lives at all, or parents with the capabilities to support them in this area.

All this points to the need for tech companies to prioritise children's wellbeing when designing their products. This is a moral imperative – if a company is providing services to children, including vulnerable children, then their welfare must be at the forefront. In the past year we have seen even more parental controls and child protection features introduced into some of the most popular products among children, which is welcome. But a more fundamental step change is required to incentivise companies to truly put children first in all aspects of their work.

The long overdue Online Safety Bill has great potential to create this shift. It will put much greater responsibilities on tech companies to keep their users safe, especially children. It will also increase the focus on user empowerment, with companies required to do more to respond to complaints from the users. It is welcome that parents have been designated as 'affected persons' who can engage with companies on children's behalf.

The Online Safety Bill is not perfect, but it is a start, and the focus must now be on getting the new regulatory regime up and running as soon as possible. There is much work to

be done to flesh out the key provisions of the Bill, e.g., in drawing up risk assessments and codes of practice. As it goes about this work, we continue to urge Ofcom to not simply focus on the most serious harms that children can experience, but the wider group of softer harms (e.g., screen time, low level bullying) which children and parents repeatedly tell us they are concerned by. In other words, the focus should be on **wellbeing**, not just safety – in line with the Information Commissioner's Office Children's Code.

It is also important that the regulator keeps an eye to the future, which will no doubt include more metaverse technologies and services.

Our recent report into the metaverse, A Whole New World?, urged Ofcom to incorporate the metaverse into risk assessments and to consider a specific code of practice for the metaverse, and we repeat this call here.



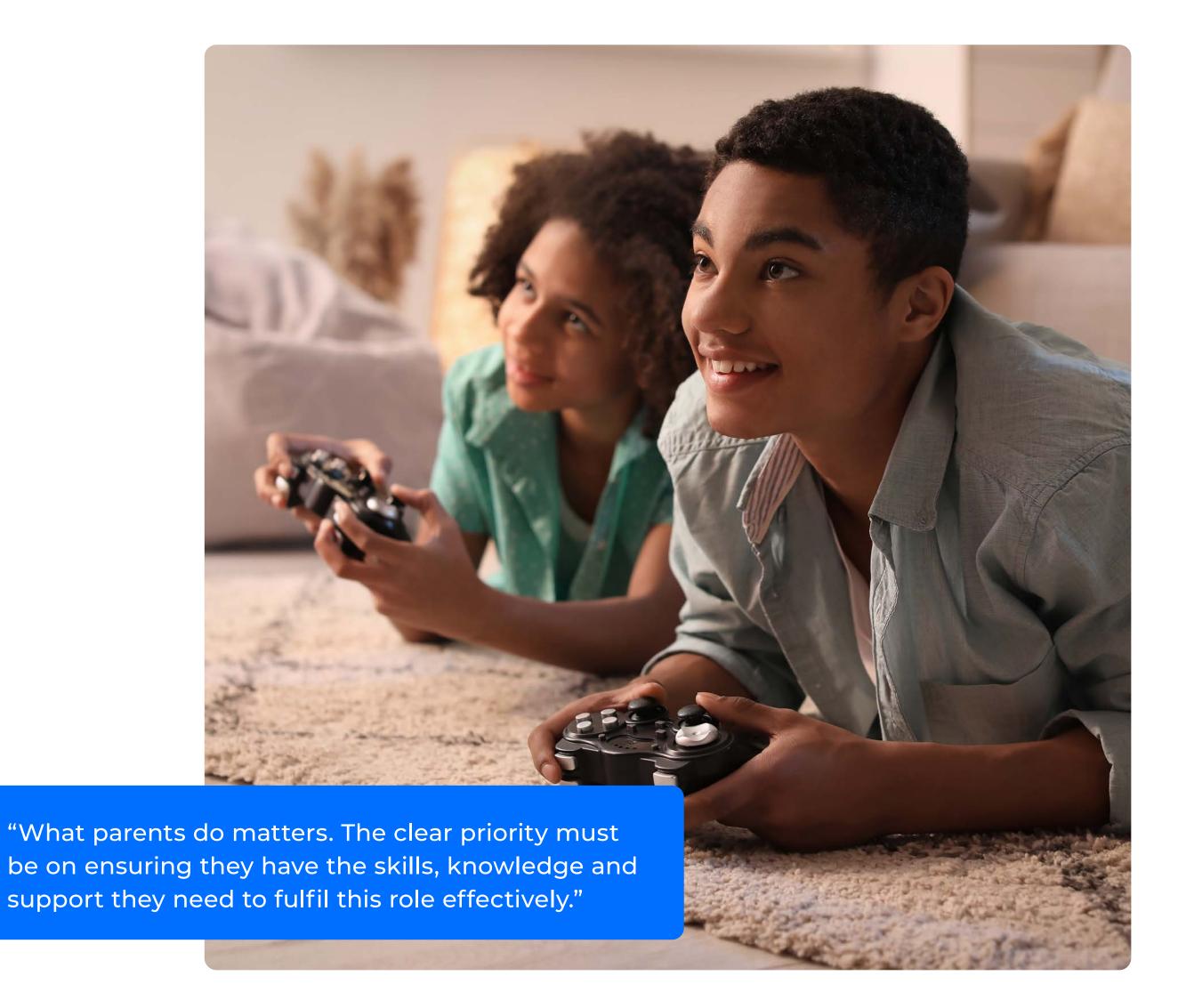
Next steps by Internet Matters

The findings presented in this report are just a snapshot of the incredibly rich dataset offered by the Index. In the coming months, we will be exploring the data in greater detail and delivering further insights to industry, policymakers, schools, parents and the wider media literacy sector.

There are some significant points of difference from this year's Index results compared with last year's, and this will be the initial focus of our additional analysis. Most notably, the findings suggest that the positive effects of being online for children's wellbeing have reduced for UK children (aged 9-15) since last year. While the picture is complex, it appears that certain groups are more affected than others. In particular, girls appear to be having a worse time online than boys, especially 9-10-year-old girls, whose social and physical wellbeing has worsened considerably. On the other hand, of the positive improvements, the most significant was for the emotional wellbeing of boys, particularly those aged 15, pointing to them being more confident in their online interactions. All these points require further analysis and scrutiny.

Furthermore, the additions to this year's Index have shown that families experiencing financial deprivation tend to have poorer wellbeing outcomes. This will be another area of our additional analysis; we want to better understand what drives these outcomes and, potentially, the relationships with other factors such as family structure and region. We will publish further research on this theme in the coming months.

We have been delighted by the response to the Index in the past year. It has provided valuable insights to policymakers and industry, and informed our offer to parents and schools, ensuring that everything we do is evidenceled. We can confirm our continued intention to run the Index for a third year, and for the foreseeable future, and are in the planning process for next year's fieldwork. We are also looking to provide more of the survey data that is used to create the Index in a more granular and visually accessible way. We welcome any further feedback on the Index and suggestions of what we can do to ensure it is as useful as possible to everyone with a stake in children's online lives.



Appendix 1: Detailed method and analysis

Who we surveyed

The Index is based on the answers to a questionnaire asked of 1,000 UK children (aged 9-15) and their parents in a matched survey.

In addition to the 1,000 9-15-year-olds, this year's survey was extended to and answered by 138 16-year-olds and one of their parents/guardians, totalling 2,276 responses. The sample was stratified by age and gender of the child, with approximately 140 children of each age group, and equal numbers of boys and girls. This stratification is in alignment with the sample who completed the survey in wave 1.

We did not apply quotas to the sample of parents, surveying slightly more female parents and guardians than male: 693 to 444.

We also conducted in-depth interviews with six families to explore the insights from the survey in more detail.

How scores are calculated and compared wave-on-wave

The participants were asked to rate the importance or truth of statements about their technology use, their feelings about their technology use, and some questions about their household and family dynamics. Each statement has been assigned to one of the four dimensions of wellbeing and designated as relating to either positive or negative effects of digital technology on children. The overall Index, and the scores for each dimension, are based on these answers.

How scores were developed for each positive and negative dimension

- Each of the eight groupings (four dimensions with a positive and negative group) is represented by between three and eight survey items (please see Appendix 3 for detail on all items used)
- Each item was scored out of three based on the strength of an individual respondent's answer. For example, someone reporting that they do something 'all the time' scored higher than someone who reported that they did something 'occasionally'
- For each dimension the scores for related items were simply averaged (taking the arithmetic mean), providing a maximum score of three and minimum of zero
- The arithmetic mean of every respondent's dimension score provides our total scores, which in turn provide our baseline scores for the whole Index
- Children's items created the children's Index, and matched parents' items created the parents' Index
- For the wave 2 report, scores from this wave's survey are all indexed against the equivalent score from wave 1 to represent whether an increase or decrease has occurred for each dimension and each sample group

The positive and negative aspects of all the dimensions were separated in the following way:

Developmental wellbeing:

- Positive items focus on whether children have been able to use digital tools to their advantage, enabling them to discover, learn and develop
- Negative items focus on the extent to which children appear to be experiencing a lack of control over how they use digital technology, where it generates behaviour that has no obvious benefit or pay-off for the child

Emotional wellbeing:

- Positive items focus on the positive influence digital technology can have on how children feel about themselves and the positive emotions it elicits
- Negative items focus on the negative emotional reactions or experiences that use of digital technology can produce in children

Physical wellbeing:

- Positive items focus on the use of digital technology to facilitate physical activity by enabling children to learn and develop their knowledge and skills
- Negative items focus on the opportunity costs and negative consequences that over-use of digital technology can have on physical health and activity, such as preventing children from engaging in sports/exercise or impacting their sleep

Social wellbeing:

- Positive items focus on the role that digital technology can play in enabling children to remain connected to others or form new, valuable connections, particularly in circumstances where this might otherwise not be possible or as feasible
- Negative items focus on the negative consequences that can arise from social interaction online

Considerations in reviewing index scores

Whilst this framework is useful to categorise the ways in which children's wellbeing has developed since last year, there are of course many overlaps between these dimensions, and in reality, children's wellbeing cannot be isolated to only one specific dimension. For example, a child might become more active and see an increase in their physical wellbeing, and this in turn may also bring about an improvement in their mental health and an increase in their emotional wellbeing. Similarly, it is also impossible to measure causality between the shifts in dimension scores: greater physical activity could be both the cause or result of better mental health, and as such, an increase in physical wellbeing could be both the cause and result of an increase in emotional wellbeing. The Index aims, therefore, to quantify children's digital wellbeing, whilst also acknowledging the nuances that occur across these different dimensions.

However, it is important to note that these charts cannot account for the relationships between positive and negative changes. For example, it might be the case that boys are using digital devices less to communicate socially compared with last year, and consequently are reaping fewer social benefits from interacting online. This in turn, however, may mean that they are experiencing fewer emotional negative consequences because they are spending less time online, and are exposed to fewer negative incidents. To pull out deeper analysis of the cause of these changes, we have analysed both the quantitative and qualitative data to provide more context for the potential drivers of these changes.

Another point to note is that this data only captures the impact of digital devices on children's wellbeing, and scores do not correlate to their wellbeing in general. For example, what is described as a decrease in boys' social positive score does not account for the possibility that they may be spending more time socialising in-person and experiencing greater benefits from offline social interaction compared with last year. Therefore, whilst there are questions in the survey relating to children's overall wellbeing, these index scores only assess the impact of digital devices on children's wellbeing, and do not demonstrate trends around their overall wellbeing outside of digital device usage.

Appendix 2: Changes made to the questionnaire in wave 2

Throughout the development, design, and analysis of the Index in wave 1, several areas of opportunity for improvement emerged. During the development of the wave 2 programme of work throughout 2022, a range of amendments were made to questionnaire to strengthen the index for future waves of work.

The questionnaire used to develop the Index includes two categories of questions, across a range of children and their families:

- Items that form the Index and are designed to try to measure different mechanisms by which digital technology can impact the wellbeing of children
- 2. Questions that are used to segment the sample and therefore compare index scores across groups; these include demographics such as age and gender, questions on digital behaviours, parent-child dynamics, and established measures of wellbeing itself

In 2022, new questions were introduced across both of these categories as well as including 16-year-olds and their parents.

Category 1: Improved Index questions and a new section exploring online harms

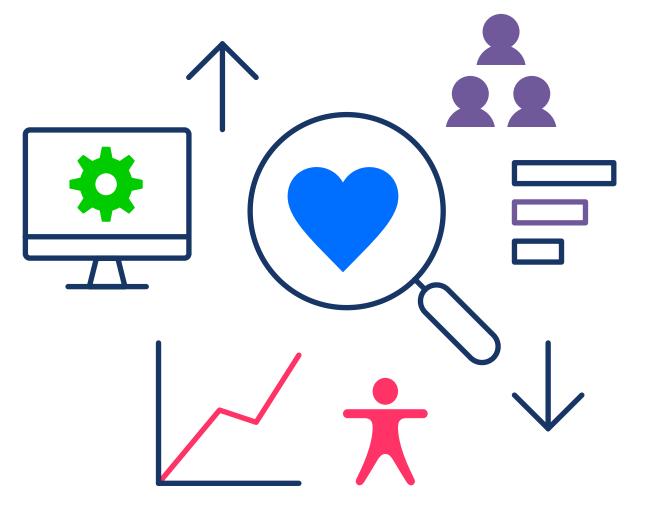
- Additional items across each aspect
 of wellbeing in both the children's and
 parent's surveys to broaden the exploration
 of the impact of digital technology on
 children's wellbeing
- An entirely new section of the questionnaire was introduced with items exploring children's experiences of online harms, how much impact they felt these experiences had, as well as their parent's views on these experiences, the impact, and how much they worry. These enable the exploration of whether the Index can detect negative impacts to children's wellbeing as a result of these areas of particular concern.

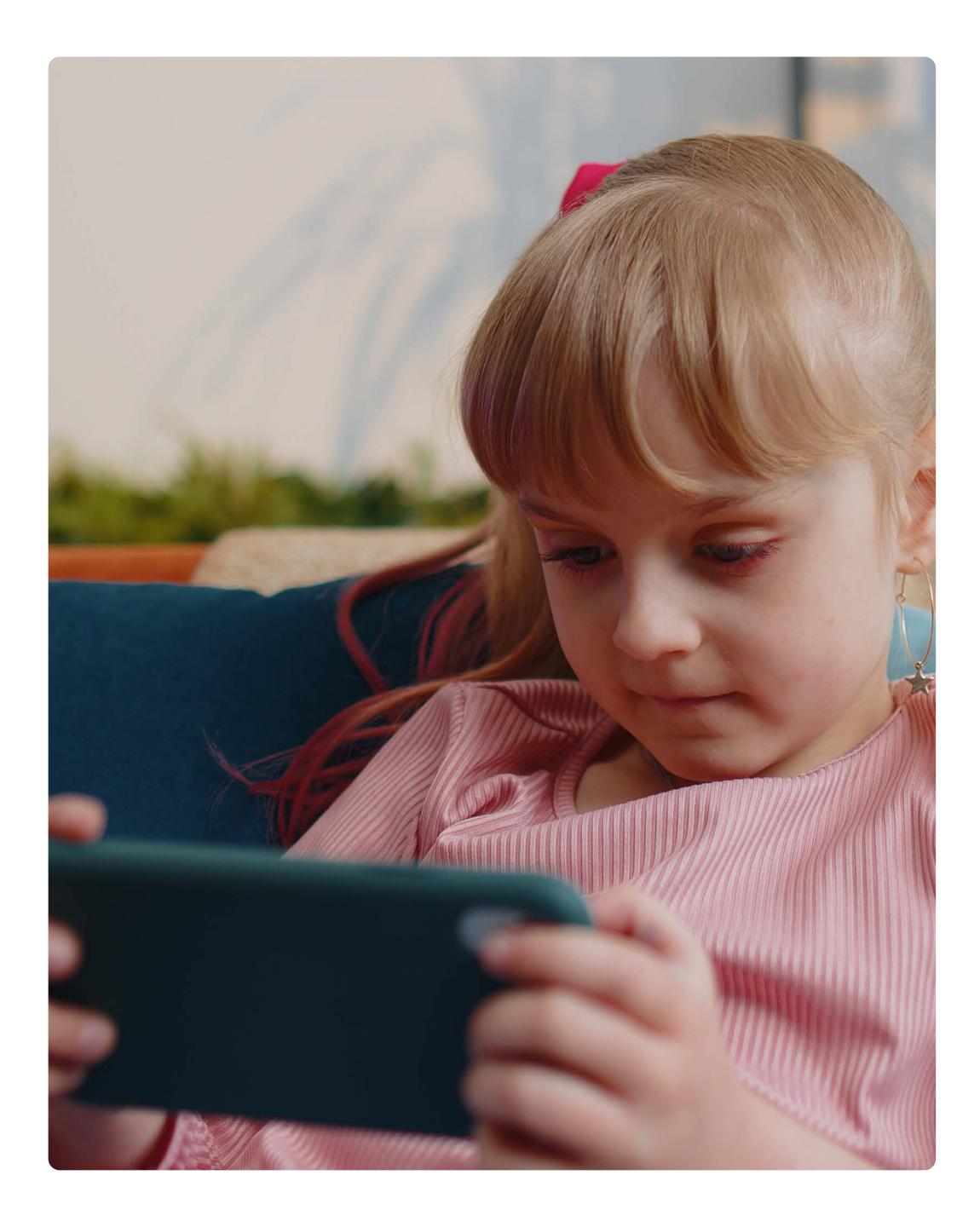
Category 2: Capturing additional characteristics and behaviours of children and households

- Questions included that help to assess and contrast vulnerable children to their less vulnerable peers were expanded, including items whether the child receives free school meals or not, and whether households struggle to access technology due to financial constraints
- This wave introduced new items relating to parent's digital habits, skills and parenting styles including their self-reported level of strictness (both generally and with technology)
- Capturing whether children's behaviours on social media would put them as 'active' or 'passive' users.

Future of the Index

New items added to the Index this year were not asked in wave 1, therefore any analysis that relies on comparison with wave 1 has excluded all new question items. All index scores in this report that are benchmarked against wave 1 data reflect the original configuration of items underneath each dimension, excluding new items. In future waves, these can be included for comparison from wave 2 to 3 and beyond.



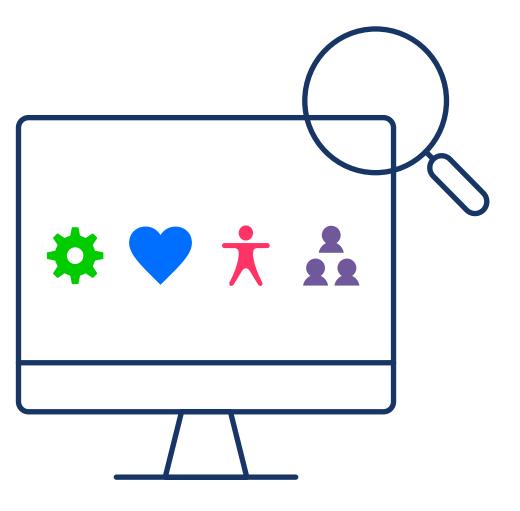


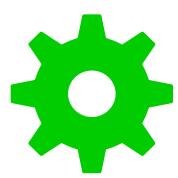
Appendix 3: Dimensions and items

he index is based on four key dimensions identified in the Children and families' wellbeing in a digital world report by Dr Diane Levine and team at the University of Leicester.

The items that are included under each dimension were developed, refined, and selected for inclusion based on:

- The original definition of each dimension from the University of Leicester report
- The qualitative research findings exploring how these issues manifest and appear in the real lives of children across the UK
- The testing of different survey question items during this qualitative research, to establish which were better at tapping into these real-world experiences.





How digital technology impacts developmental wellbeing

Developmental wellbeing: realisation of cognitive capabilities and achievement of educational potential; managing financial responsibilities that come with maturation; personal growth.

To develop well in a digital world, you can benefit from: opportunities for learning new skills and developing a sense of wonder; opportunities to develop thinking, collaboration, organisation and problem-solving skills; opportunities to bring together content to offer to others; access to new information and online learning including gaining qualifications; exposure to alternative opinions, world-views and examples of mature rational discussion; secure understanding of how data are used; and the digital skills, confidence and competence for everyday tasks and roles in daily life (including work, homework, household administration and financial management). For some, technology can even provide an income stream, for example through the safe monetisation of digital platforms.

You will need to manage the risks from: exposure to disinformation; fake news; fallacies and conspiracy theories; living in an echochamber; wasting or missing opportunities to learn; seeing examples of unhelpful and irrational thinking; cybersecurity challenges such as managing personal data online; and challenges to financial wellbeing - such as exposure to the varied and subtle ways that online games take money from players, sometimes in tiny but repeated payments.

From Children and families' wellbeing in a digital world, University of Leicester

Items included in the Index for developmental wellbeing

+ or -	Children	Parents
Positive	Technology and being online has been important for me being more independent and being able to do things by myself	Technology and being online has been important for my child having more independence (e.g., because they can be contacted and are able to use their phone to get to places etc.)
	Technology and being online has been important for getting ideas for what I would like to do in the future (e.g., as a job)	Technology and being online has been important for my child thinking and planning for the future (e.g., what they would like to do after they leave school)
	Technology and being online has been important for me learning about things that no-one would teach me about in real life [originally 13+ only]	Technology and being online has been important for my child being able to learn about things no one would teach them in real life [added this year]
	Technology and being online has been important for helping me revise / learn things for school	Technology and being online has been important for my child being able to engage with schoolwork and other educational opportunities
	Technology and being online has been important for being able to find new hobbies or things I am interested in	My child benefits a lot from being able to look things up online that they are interested in
	I'm able to use the internet to earn money from some of the things I do online (e.g., website design, playing video games, sponsorship or payments from brands to promote things online/on social media) [originally 15+ only]	Technology and being online has been important for my child making money by using specific digital skills (e.g., website design, playing video games, sponsorship or payments from brands to promote things online/on social media) [originally 15+ only]
	I understand what personal information I should and shouldn't share online [added this year]	My child fully understands what personal information they should and shouldn't share online
		Technology and being online has been important for my child being able to learn new skills

+ or -	Children	Parents
Negative	I keep playing the same games or watching the same TV shows/films even when I'm not enjoying it	My child spends a lot of time re-watching the same TV shows or re-playing the same games that they've seen or played before over and over again
	I run out of things to see on social media so scroll through the same things again [originally 13+ only]	My child spends a lot of time scrolling through the same things on social media [added this year]
	I quite easily spend money online without realising e.g., buying apps and spending money in games	My child spends money in apps or on games without realising
	I don't feel like I can control how much time I spend online	My child is not able to control how much time they spend online [added this year]
	I see something I don't like online or on social media, but don't know what to do about it	My child struggles to work out whether the information they are exposed to online/on social media is true



How digital technology impacts emotional wellbeing

Emotional wellbeing: healthy emotional development; ability to cope with stress and setbacks; spiritual development; development of thoughtful values and a positive outlook; space and opportunities to flourish; life purpose; autonomy; feeling successful.

To be well in a digital world, you can benefit from: opportunities for creativity and self-expression, for example online curation of links to hobbies; opportunities to be authentic, for self-validation and building self-worth; information about methods of self-regulation such as timed meditation practice apps; channels that let us articulate our emotions and validate our experiences, for example special interest groups on social media; exposure to positive role models; harmless strategies for distraction and management of emotional pain; opportunities to engage in joyful and enjoyable activities such as developing or operating in gameworlds.

You will need to manage the risks from: addiction; low self-worth; increased emotional distress; destructive behaviours or beliefs such as self-harm or radicalisation; shaming and isolation; 'doom-scrolling' (continual scrolling through negative news); unrealistic comparisons against impossible standards; exposure to harmful content such as extreme pornography; exposure to 'persuasive design' and a desire for constant, instant self-gratification.

From Children and families' wellbeing in a digital world, University of Leicester

Items included in the Index for emotional wellbeing

+ or -	Children	Parents
Positive	Spending time online makes me feel happy [originally 13+ only]	Being online makes my child happy [added this year]
	Being online has let me find people I admire and look up to [originally 13+ only]	Being online has enabled my child to find positive role models
	Being online has helped me to feel more comfortable with being 'me' [originally 13+ only]	Being online has helped my child to feel more comfortable with themselves [added this year]
	I create things I'm proud of online or using technology (e.g., games or computer programmes)	My child creates things they are proud of online or using technology (e.g., in games or with computer programmes) [added this year]
	I see things or people online that inspire me to try new things	Technology and being online has allowed my child to see things or people that inspire them to try new things [added this year]
	Being online has helped me learn more about people with different experiences to mine, which I wouldn't have come across otherwise [added this year]	Online platforms/resources have allowed my child to learn about and empathise with people who have different experiences to them, which they wouldn't have otherwise had exposure to
	I'm able to be myself online or on social media [originally 13+ only]	Digital devices/ being online has allowed my child to discover and pursue interests/hobbies that make them happy

+ or -	Children	Parents
Negative	I worry a lot about what other people think of me online (e.g., on social media)	My child worries a lot about how others perceive them online (especially social media)
	I see people online/on social media who make me feel sad because I'm not like them	My child compares themselves to people they see online/on social media in a way that I think is unhealthy
	I get more easily upset/angry when online or playing video games than when doing other things	My child gets more easily upset/ angry when online or playing video games than when doing other things
	I post or say things online that I regret later	My child posts or says things online that they later regret [added this year]
	I get upset if something I post online/on social media does not get many likes or nice/positive comments	My child gets upset because something online or social media does not get the response they wanted it to (e.g., not enough 'likes', or interpreted the wrong way)
	I see things online that worry or upset me	My child sees things online that worry or upset them
	I worry about saying something wrong online/on social media	My child's online activity exposes them to content that encourages or supports unhealthy body image (e.g., extreme weight loss or muscle gain)



How digital technology impacts physical wellbeing

Physical wellbeing: achievement and maintenance of healthy thriving; development of physical capabilities; using technology in physical safety; access/lack of access to supportive or accessibility technologies.

To be well in a digital world, you can benefit from: opportunity to maintain a healthy balance between sedentary and active behaviours; to develop new physical skills; opportunities to participate in mobile digital activities; access to supportive or assistive technologies for those with chronic disabilities, for example reading pens or visual search engines, or 'adaptive switches' designed to help people independently activate switch enabled devices such as smartphones; information about healthy lifestyle choices; shared or learned activities for wellbeing (sports, exercise, relaxation).

You will need to manage the risks from: losing opportunities of doing healthy and joyful activity in favour of sedentary or shut-in lifestyles, sometimes called 'displacement'; sleep disruption; exposure to problematic temptations impacting physical health and wellbeing; exposure to potentially damaging content promoting unhealthy behaviours towards food or exercise or negative impact on nutrition; impact on self-ideation and body confidence.

From Children and families' wellbeing in a digital world, University of Leicester

Items included in the Index for physical wellbeing

+ or -	Children	Parents
Positive	I use the internet to learn new skills at a sport or physical activity	Technology and being online has been important for my child being able to learn skills or pick up tips for improving a sport or exercise activity they do (e.g., by watching videos on YouTube or reading about sports online)
	I use my phone to arrange to meet up to play sports or do activities outside	Technology and being online has been important for my child arranging to meet up and play sports or do outdoor activities [added this year]
	I use apps, websites and devices to help me stay healthy	My child uses apps, websites, or devices to help them stay healthy [added this year]
	I use apps or websites to find out about new sports or exercises I want to try out (e.g., seeing people doing a sport on social media) [added this year]	Technology and being online has been important for my child finding out about new sports or exercises they want to try out (e.g., seeing people doing a sport on social media)

+ or -	Children	Parents
Negative	I stopped playing a sport or doing exercise because I want to play video games, watch TV or be on social media	My child has stopped doing sports or exercise because they are too busy on their phone, computer, TV or games console
	I stay up late on my phone, playing games or watching TV (e.g. into the early hours of the morning once everyone else has gone to bed)	My child spends time on their phone, computer or games console which negatively affects their sleep patterns
	I spend a lot of time online which affects my physical health (e.g. makes me tired or unable to concentrate, affects my eyesight or posture) [added this year]	Spending a lot of time online affects my child's physical health (e.g., strains their eyes, makes them tired or unable to concentrate, affects their posture) [added this year]



How digital technology impacts social wellbeing

Social wellbeing: participation in wider communities including schools, clubs or societies; being an active citizen; ability to work with others; healthy interaction with online communities; maintenance of positive and sustainable online personae; managing the risks of grooming and exploitation; development and maintenance of good relations with significant people both online and offline; communication with people we know.

To be well in a digital world, you can benefit from: relationships with significant others who bring care and support, opportunities to both keep apart, and integrate online and offline relationships and the knowledge of when to do this; opportunities for shared experiences and building of new positive relationships; maintaining existing relationships; healthy and open communications; opportunities to help and support others; mentoring and being a mentor; access to community of 'people like me' (for example through digital activism or peer support groups); ability to move between communities; healthy interaction with unknown people or in public forums; positive reinforcement from community participation; maintenance of a nondestructive and age appropriate online presence; opportunities to be an active citizen.

You will need to manage the risks of: experiencing and exhibiting bullying behaviour, grooming and other forms of exploitation; forming and/or being unable to escape from destructive relationships; becoming cut off from family and friends; withdrawal and alienation; lack of communication or loneliness; unhealthy comparison with others; fear of missing out; participation in communities that are intrinsically harmful, abusive or antisocial participation styles; a digital footprint with negative consequences for the future; isolation from social interaction in digitally-mediated and physical life; exposure to racism and other forms of discrimination; development of antisocial behaviours and alienation from broader society (such as radicalisation).

From Children and families' wellbeing in a digital world, University of Leicester

Items included in the Index for social wellbeing

+ or -	Children	Parents
Positive	Technology and being online helps me to stay in close contact with my friends	Technology and being online helps my child stay in contact and maintain meaningful relationships with people who are important to them
	Technology and being online helps me to stay in contact with friends or family I wouldn't be able to otherwise (e.g., friends who live far away)	The internet and digital devices (e.g., smartphone) has helped my child to stay in contact with people they otherwise wouldn't have been able to do (e.g., relatives or friends who live far away)
	Technology and being online helps me meet people who become good friends	Technology and being online helps my child meet people who have become important friends
	Digital devices/being online lets me feel like part of a group [originally 15+ only]	Digital devices/being online has enabled my child to feel part of a group that they otherwise wouldn't have
	Technology and being online helps me find groups or communities that can offer me friendship and support [added this year]	Technology and being online helps my child find groups or communities that can offer friendship and support
	Technology and being online helps me participate in activities and events that are important to me [added this year]	Technology and being online helps my child to participate in activities and moments/events that are important to them

+ or -	Children	Parents
Negative	I have upsetting experiences interacting with other people online (e.g., bullying)	My child has had negative experiences interacting with other people online (e.g., bullying)
	Spending time online makes me feel lonely [added this year]	Spending time online makes my child feel lonely [added this year]
	I turn down opportunities to meet with friends so I can stay in on my phone, computer, or games console [added this year]	My child turns down opportunities to meet with friends so they can stay in on their phone, computer or games console
	I feel upset or uncomfortable because I see people being mean or unpleasant to each other online [added this year]	My child gets upset or uncomfortable because s/he sees people being mean or unpleasant to each other online [added this year]
	I avoid using certain apps, websites or games because of the way people act or talk to each other on them [added this year]	My child avoids using certain apps, websites or games because of the way people act or talk to each other on them [added this year]
	[Impact of] Someone you don't know has tried to contact you/sent you messages [added this year]	[Impact of] being contacted by a stranger online [added this year]
	If I miss out on things that are happening on social media among my friends, I get upset	We often find it difficult to get our child(ren) out of the house because they want to stay in and play video games, stream and watch TV programmes or be on their phone

About Revealing Reality

Revealing Reality is an independent qualitative and quantitative insight and innovation agency. We enjoy working on challenging projects with social purpose across all sectors to inform policy, design and behaviour change.

Studying how the digital world is shaping young people's lives is something Revealing Reality does every day.

We frequently work with regulators, government, charities and businesses to provide independent and rigorous insight into young people's online behaviours and experiences, and have been tracking children's media use and the effect it has on them for over a decade. We have also conducted numerous detailed qualitative behavioural research projects for a range of organisations to understand how people really use and experience digital products, services, and technology.

Revealing Reality produced the first Children's Wellbeing in a Digital World Index for Internet Matters in 2022, providing a benchmark from which to track the impact of digital technology on the wellbeing of children year-on-year.





Ambassador House,
75 St Michael's Street,
London, W2 1QS
info@internetmatters.org

- f InternetMatters
- internetmatters
- **y** @im_org
- in internet-matters-ltd