



youth
SKILLS

**Young people
experiencing internet-
related mental health
difficulties: the
benefits and risks of
digital skills**

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Young people experiencing internet-related mental health difficulties: The benefits and risks of digital skills

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DISCLAIMER

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The report includes young people talking openly and honestly about mental health difficulties and trauma (self-harm, sexual abuse, eating disorders, traumatic incidents, bereavement, bullying). Some readers might find these accounts distressing.

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YOUNG PEOPLE EXPERIENCING INTERNET-RELATED MENTAL HEALTH DIFFICULTIES: THE BENEFITS AND RISKS OF DIGITAL SKILLS

RESEARCH QUESTIONS

- 1 What is the relevance of different dimensions of digital skills in the lives of young people experiencing mental health difficulties?
- 2 How do young people experience the role of digital skills in aiding or worsening their mental health difficulties, including their capacity to cope?
- 3 What recommendations can be drawn from young people's experiences that may inform mental health professionals, schools, companies, regulators and the public to support young people's digital lives?

KEY TAKEAWAYS

Digital technologies are not all good or all bad – they can have both positive and negative effects on young people's mental health.

Positively, the internet and social media can help young people meet and talk to others. They can also offer information and support and help people to cope with difficult situations.

But they can also be upsetting and trigger mental health setbacks. For example, young people may be shown unwanted harmful content or find themselves in extreme spaces.

Vulnerable young people are often on the lookout for online threats. They try to develop the skills and knowledge to prevent online problems or to deal with them better.

Young people with lived experience of mental health difficulties have lots of digital skills. Some are helpful for their mental health - such as learning about algorithms that promote negative content or finding 'safe' spaces or trusted people to support you online.

Young people with lived experience of mental health difficulties do not always manage to gain the specific skills they need. Or they have the skills but can't always use them effectively when they need to. So, things can still go wrong online. And sometimes this makes mental health difficulties worse.

Young people often feel it's down to them to manage their digital lives. So, they may feel proud of what they can cope with. But they can also feel alone when coping with difficult situations.

Young people rarely seek help or advice when they are in trouble online. They are afraid of being misunderstood or punished or blamed for things going wrong. So, they may find ways to keep their digital experiences secret from parents, teachers, therapists and even peers.

They would like the internet and social media to be made into more friendly and supportive places. And they would like their therapists and other trusted adults to understand their digital lives better.

METHOD

In-depth interviews with 62 young people (aged 12–22) who have experienced mental health difficulties of varying severity, most of whom had recently received treatment.

In Norway and the UK



“My whole feed was just full of ‘what I eat in a day’. But these people ... they were eating such tiny amounts. I'm like 12, thinking about it. I eat three meals and then these people are having a strawberry for brunch.”
(girl aged 14, UK)

“How can I develop without making mistakes? I have to learn it myself because there's not always going to be that person to tell me not to do this and not to do that.”
(boy aged 17, UK)

“On Twitter sometimes there are feeds trending or threads trending on my feed where it's like ways to cope. And I have got a bunch of those added to my bookmarks so that I can go to them quickly.”
(girl aged 17, UK)

“I can't talk to mom about these deep things. She doesn't know I am on these sites and I don't want her to worry. I don't feel so comfortable talking to her when it is so bad. I want to protect her.”
(girl aged 19, Norway)

“It is more helpful to support and just listen instead of explaining again and again ... how you have been involved in this situation ... because I know that I was stupid.”
(girl aged 16, Norway)





CLINICIANS, SAFEGUARDING AND MENTAL HEALTH PRACTITIONERS

- **Young people have diverse digital lives.** Practitioners should get to know about them.
- **Encourage young people to share about difficult online experiences.** Showing empathy, understanding and genuine interest can reduce shame and help disclosure.
- **Telling them to stop going online is impractical, even counterproductive.** Instead, try to understand young people's motivations, even for doing risky things online.
- **Practitioners need training and digital skills.** Youth services must address young people's digital experiences and offer therapeutic strategies when their experiences are problematic.



EDUCATORS

- **Support for students should be meaningful and relatable.** It should address all online activities they engage in and recognise what is vital for young people's wellbeing and safety.
- **Teaching should cover different types of digital skills, not just technical training or e-safety messages.** For example, education on algorithm literacy is now essential.
- **Educators need a trauma-informed approach to understand the specific needs of at-risk and vulnerable young people.** This includes ways to cope with online challenging behaviours from peers and risks that arise from the design of the digital environment.
- **Education should promote resilience and help-seeking** and work to overcome digital and social exclusion.



INDUSTRY AND TECH COMPANIES

- **Providers should recognise the diversity of their users and design with young people in mind.** Particular efforts should be made for those who are vulnerable or at risk.
- **Companies should reduce risk features in their designs, and develop effective policies to deal with emerging risks.** When young users contribute to risk, the response should be supportive, not punitive.
- **Digital literacy resources should include mental health literacy** and help young people to recognise and respond constructively to likely harms.
- **The operation of algorithms that promote or amplify upsetting or extreme content should be prevented.**
- **Specific recommendations include: make privacy settings easier, simplify reporting and take-down of problematic content and provide in-time support and safe spaces**



GOVERNMENT

- **Children and young people should be able to receive timely and appropriate therapy and support as needed for any and all mental health difficulties they may encounter.** Government should ensure services are sufficiently funded, with access to expertise about the digital environment.
- **Government should ensure that educators, law enforcement and other relevant professionals can support vulnerable and at-risk young people's wellbeing in relation to their digital lives.**
- **They should consider regulation to limit the excessive risks posed to young people's safety by the actions of commercial providers of digital products and services, especially the large platforms.**



1. Executive summary

There is growing public and expert concern that young people's digital activities on the internet may worsen their mental health, although the research literature remains contested. This report investigates whether gaining digital skills makes a difference to improving young people's wellbeing outcomes. As well as drawing on the burgeoning literature on youth digital skills, we were also able to learn from the perspectives of those with lived experience of diverse mental health difficulties.

To discover whether young people develop distinctive skills because of the particular risks and opportunities they encounter online, we conducted in-depth interviews with 62 young people aged 12 to 22 in Norway and the UK with experience of mental health difficulties of varying severity, most of whom had received treatment in the recent past.

The report asks three research questions:

1. What is the relevance of different dimensions of digital skills in the lives of young people experiencing mental health difficulties?
2. How do young people experience the role of digital skills in aiding or worsening their mental health difficulties, including their capacity to cope?
3. What recommendations can be drawn from young people's experiences that may inform mental health professionals, schools, companies, regulators and the public to support young people's digital lives?

Although it had been expected that the differing cultures of childhood between Norway and the UK might have resulted in different digital skills and outcomes for young people growing up in these countries, their lives bear striking similarities. We can therefore summarise the findings across the interviews as follows:

The relevance of different dimensions of digital skills in the lives of young people experiencing mental health difficulties

- Young people with mental health difficulties are developing particular digital skills that both encompass technical, informational, communication and creation skills and also go beyond them: for example, the skill of identifying a callous algorithm, recognising an extreme space or a dangerous person or, more positively, knowing how to game the algorithm to make their feed positive or locate 'safe' spaces or trustworthy people. This expands prior definitions of digital skills and also highlights that a broad range of skills is needed to achieve positive and avoid negative wellbeing outcomes, especially for vulnerable young people.
- Young people actively engage with the digital world by utilising its affordances and shaping its parameters, sometimes going against the grain of what was envisioned by design and regulation. This includes their tactics of moving between platforms, curating audiences and merging app functionalities – often revealing how they are taking ownership and shaping their online experiences in ways that serve them.
- The mastery of technical, informational, communication and creation skills is complexly interlinked in everyday contexts. Moreover, understanding 'at-risk' behaviours is, on its own, insufficient for explaining mental health outcomes. We need a good understanding of the psychosocial context and developmental needs of each young person, and to situate their digital experiences in the context of their wider lives, both individually and collectively.



How young people experience the role of digital skills in aiding or worsening their mental health difficulties, including their capacity to cope

- The young people we spoke to were generally skilled internet users, but sophisticated skills do not necessarily make for better mental health and wellbeing outcomes. The level of their digital skills may also be unrelated to the impact of digital experiences or affordances – for instance, the operation of algorithms – and may even result in riskier online engagement, at times breaching their ability to cope with detrimental consequences.
- For many of the young people, their negative online experiences were implicated in the development of their mental health difficulties. For instance, experiencing online sexual abuse, unwanted sharing of pictures of sexual content or online bullying could lead to negative self-worth, depression or posttraumatic stress disorder (PTSD). When they were not able to disclose these experiences and receive adequate help, the long-lasting consequences appeared more severe, affecting their school performance, social life and leisure activities and wellbeing.
- While young people are fascinated by the digital affordances of the social media they engage with, for those with mental health difficulties these affordances could also undermine their wellbeing. They devote considerable efforts to anticipating and managing the potential threats, emotional upsets and extreme events that might occur during their digital lives, as well as searching for recognition, information and support.
- Platform algorithms are often ‘out of sync’ with and insensitive to the young person’s state of mind or ability to cope, leading to experiences of ‘triggering’ (when particular online content proves upsetting because of prior mental health difficulties), unwanted re-exposure to such content, and setbacks in their mental health. Algorithms can act as a distorting mirror, magnifying problematic content and pushing young people with mental health vulnerabilities down a spiral of ever-more overwhelming, upsetting or extreme content that they find hard to break away from. Consequently, digital skills are insufficient when faced with a digital environment that is designed to operate in ways antithetical to users’ wellbeing.
- Young people report dynamic journeys in and out of harmful situations – digital or otherwise. These unfold over time and on interlocking timescales (minutes, weeks, years). While their digital journeys are linked to fluctuations in mental health, they may contribute to developing resilience. Experiences of hardship were often understood as part of growing up in a digital world. While we heard stories of expanding understanding and competence, growing confidence and maturity, and developing self-efficacy and resilience, these stories also revealed episodes of struggle, relapse and ‘failure’ to cope, and of a later recognition of the harmful impact.
- Young people’s digital encounters are often social and collaborative – they share insights, tips and tactics with online peers or niche online communities in ways that offer support and facilitate coping – although they can also reinforce mental health difficulties. Yet, leaving even unhelpful communities or problematic online spaces may be experienced as a betrayal of that community, adding to the isolation of young people, as they tend to experience the digital world in relational terms.
- Nonetheless, finding a way out of difficult situations seems mostly to be a lonely endeavour. We were rarely told that young people sought help or advice when they were in trouble, especially when the problems occurred online. Our participants talked of active strategies of avoidance and developing digital skills designed to keep their experiences secret from parents and caregivers, teachers, therapists and even peers. Contrary to popular belief, this was less because they didn’t know who to ask for help or because they were afraid of not being believed, and more to do with feeling shame and guilt for engaging in



risky behaviour insufficiently skilled, fearing that adults would not understand and could not be trusted, or being afraid of the consequences. The advice given by adults was widely regarded as unrealistic or out of touch, failing to understand young people's digital commitments, however risky.

Recommendations based on young people's experiences that may inform mental health professionals, schools, companies, regulators and the public

- Young people with mental health difficulties face intense risky situations online with problematic real-world consequences. While they are often digitally skilled, reflexive and supported by peers, they do not feel that parents, caregivers, educators or clinical professionals acknowledge, understand or respond to their digital problems sensitively or effectively.
- Given the challenges these young people face, they do not always manage to gain the specific skills they need, or to put them into practice, especially if a mental health difficulty impacts on their functioning. This can leave them feeling very much on their own, having to self-regulate and rely on their own resources when engaging with a world – digital and beyond – which can be ambiguous, uncertain, unsupportive, or worse.
- Consequently, young people with mental health difficulties tend to make it their individual responsibility to cope, often privately, with their digital lives. They describe themselves as putting considerable effort into critically analysing the affordances of digital products and services to develop their own specialised digital skills to pursue their interests, mitigate risk and seek support and help. They also offer valuable advice for other young people, based on their lived experience.
- Urgent steps are required to regulate and manage the digital environment in ways that vulnerable young people can trust and that meet their diverse and complex needs. Current efforts by public and commercial actors to support young people's digital skills and agency and to address their needs appear insufficient, even counterproductive.
- We conclude the report with six calls for action, underpinned by the findings and highlighting the young people's voices and concerns:
 - for clinicians, safeguarding and mental health practitioners
 - for educators
 - for public health messaging
 - for industry and technology companies
 - for government
 - for researchers.

2. The ySKILLS project

The overarching aim of ySKILLS

To enhance and maximise the long-term positive impact of the digital environment on multiple aspects of wellbeing for all children by stimulating resilience through the enhancement of digital skills.

The ySKILLS (Youth Skills) project is funded by the European Union's (EU) Horizon 2020 Research and Innovation programme. It involves 15 partners from 13 countries to enhance and maximise the long-term positive impact of the information and communication technology (ICT) environment on multiple aspects of wellbeing for children and young people by stimulating resilience through the enhancement of digital skills.

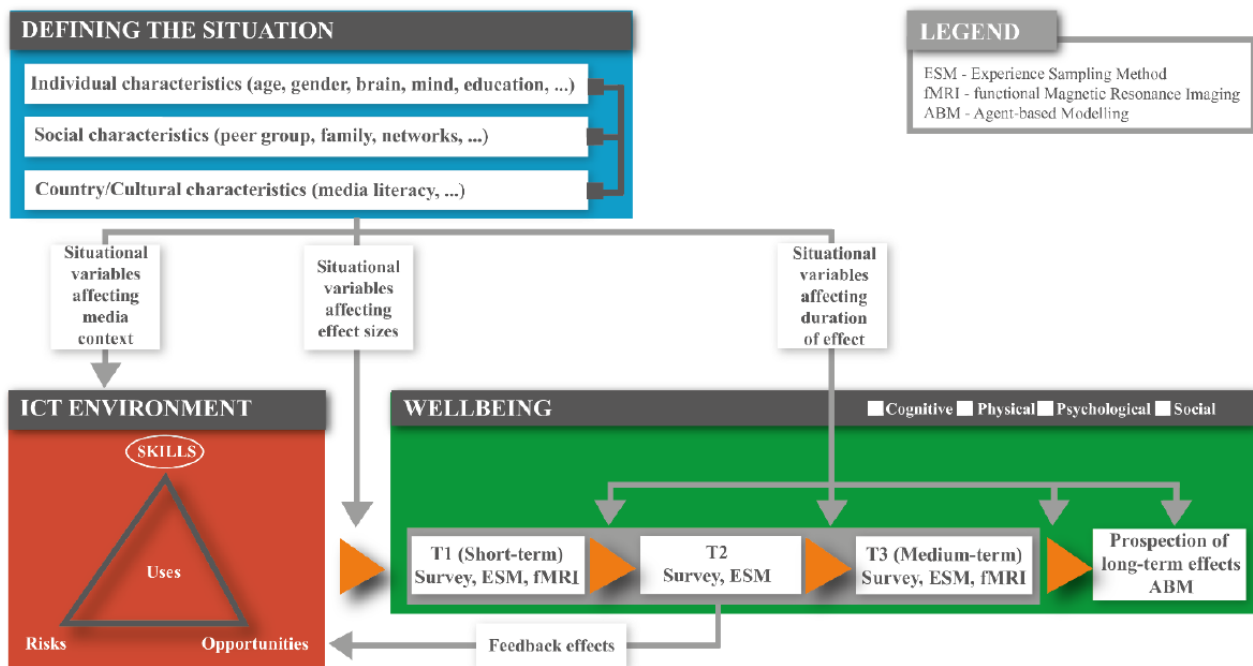


Starting from the view that children and young people are active agents in their own development, ySKILLS examines how digital skills mediate the risks and opportunities related to ICT use by 12- to 17-year-olds in Europe (see Figure 1 and www.ySKILLS.eu). ySKILLS will identify the actors and factors that undermine or can promote children and young people’s wellbeing in a digital age. The relations between ICT use and wellbeing will be critically and empirically examined over time.

ySKILLS’ research objectives

1. To acquire extensive knowledge and better measurement of digital skills.
2. To develop and test an innovative, evidence-based explanatory and foresight model predicting the complex impacts of ICT use and digital skills on children and young people’s cognitive, physical, psychological and social wellbeing.
3. To explain how at-risk children and young people (due to their poor mental health, ethnic or cultural origin, socioeconomic status and gender) can benefit from online opportunities despite their risk factors (material, social, psychological).
4. To generate insightful evidence-based recommendations and strategies for key stakeholder groups in order to promote European children and young people’s digital skills and wellbeing.

Figure 1: The ySKILLS conceptual model



3. The report

This report presents Task 6.4, part of Work Package 6, which conducted in-depth studies intended to gain a detailed understanding of the role of digital skills in improving or undermining at-risk (vulnerable or disadvantaged) children and young people’s wellbeing. The report contributes to ySKILLS objectives 3 and 4 and focuses on young people with experiences of ‘internet-related mental health difficulties.’ By this, we refer to excessive internet use, the experiences of those facing self-harm and eating disorder-related issues, and internet-related trauma such as



cyberbullying and grooming or sexual exploitation. We recognise that risks are positively correlated, both on- and offline, so that a young person who experiences one risk is more likely to experience others (see Appendix 1 for research context and sources).

3.1. Aims

Task 6.4 has four aims:

- 1. To understand how digital skills (as identified by ySKILLS) improve or undermine at-risk (vulnerable or disadvantaged) young people's wellbeing.*
- 2. To explain the role of digital skills in improving or undermining at-risk (vulnerable or disadvantaged) children and young people's wellbeing, by fostering their coping and resilience.*
- 3. To learn whether at-risk (vulnerable or disadvantaged) young people equally benefit from digital skills, or whether, by contrast, different groups need different policy and practice responses.*
- 4. To generate methodological innovation for the study of children and young people at risk (vulnerable or disadvantaged) and ICT use or young people in an at-risk situation.*

The relation between young people's mental health difficulties and their internet use remains contested in the research literature, so this report explores these issues in an open manner, using qualitative methods. It responds to growing public and expert concerns that social and peer-to-peer interaction on the internet, including that linked to pro-self-harm/cutting groups, pro-anorexia/thinspiration and pro-suicide groups, might cause or worsen mental health difficulties.

A better understanding of the role of digital skills in the lives of vulnerable young people could generate insights and formulate recommendations regarding therapeutic strategies to advance young people's digital skills, engagement and outcomes, including the external support needed from therapists, professional services, schools, companies, regulators, parents and caregivers. This is to include and broaden, beyond educators, the range of professionals with a role to play in understanding and supporting the development of digital skills among vulnerable young people.

3.2. Definitions

In this report we use the following terms:

- **Digital skills:** Whether termed digital skills, competences or literacies, these encompass multiple domains of knowledge ('I know about X' or 'I know how to do X') and action ('I can do X' or 'I do X') (Haddon et al., 2020). The International Telecommunication Union (ITU) defines digital skills as 'the ability to use ICTs in ways that help individuals to achieve beneficial, high-quality outcomes in everyday life for themselves and others' and to 'reduce potential harm associated with more negative aspects of digital engagement' (2018: 23).
- **Mental health:** Mental health refers to emotional, cognitive and behavioural wellbeing and the absence of illness. It 'exists on a continuum that can include periods of wellbeing and periods of distress, most of which will never evolve into a diagnosable disorder' (UNICEF, 2021: 11; see also Coghill and Sonuga-Barke, 2012; Keyes, 2005). Mental health difficulties often go undiagnosed or untreated, and some young people experience multiple mental health difficulties.
- **Digital environment:** This is constantly evolving and expanding, encompassing diverse information and communications technologies, and including digital networks, content, services and applications, connected devices and environments, automated systems,



algorithms, and so forth (adapted from UN Committee on the Rights of the Child, 2021, para. 2).

- **Young people:** The United Nations (UN) defines young people as 15–24 years old, encompassing the period of transition from childhood to early adulthood. This overlaps with the later stages of childhood, includes the period often termed ‘adolescence’, and continues after leaving compulsory education into the next stage of life, such as training, further education or employment.

4. Research context

4.1. Research objectives

Research on children and young people’s engagement with the digital world provides insights into how digital skills might mediate outcomes such as opportunities, resilience or exposure to risk of harm. Research has also considered how psychological problems experienced by young people shape their digital lives and outcomes. However, little is known about how vulnerable young people gain or lack vital digital skills. Furthermore, not much is known about the consequences for their digital engagement and wellbeing of having or not having digital skills. For example, research on European 11- to 16-year-olds with prior psychological problems and/or low self-efficacy found that they tended to be more passive or fatalistic than proactive and communicative when encountering online risks, and that these risks upset them more intensely (d’Haenens et al., 2013). We do not know whether their digital skills intensified or mitigated their vulnerability to online risks, however.

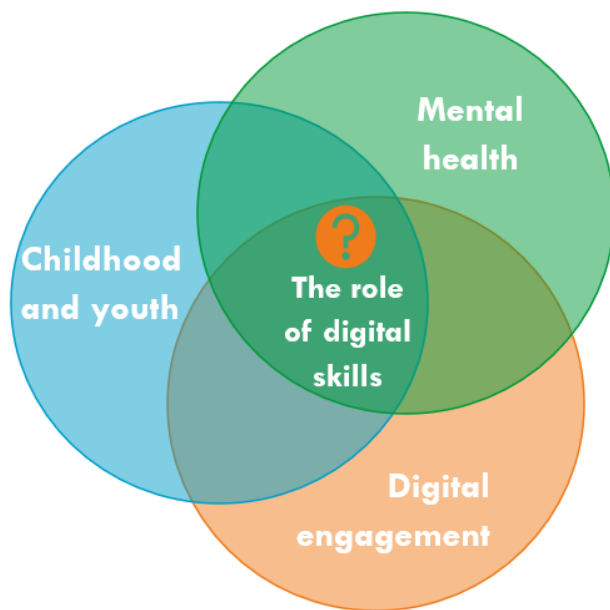
In the early days of the internet, it was considered a means of information and communication that could be used optionally, almost as a luxury for those who could afford it. Today it has become infrastructural for education, work, health, citizen participation, commerce and family life. Not only is its use hardly optional, but also those who cannot afford it are judged in need of state support. Digital skills are therefore vital (Livingstone et al., 2018). Furthermore, the nature of the internet has itself changed. In the early days, it was considered a ‘pull’ (or ‘lean forward’) technology – in contrast with television, the classic ‘push’ or ‘sit back’ technology. The early approach to digital skills therefore emphasised skills such as search and evaluation, because users had to deliberately seek each piece of content they wanted. Today, the situation is reversing: social media is becoming as much a push as a pull technology (while television has become a pull technology, with a multiplicity of broadcast and streaming channels). New skills are now required, including that of managing ‘news feed’ algorithmically driven by platforms financially incentivised to provide a never-ending stream of personalised content to the user.

While the ySKILLS project is exploring many dimensions of the importance of digital skills for young people’s outcomes (Helsper et al., 2021), this report asks about the relevance of digital skills specifically for young people experiencing mental health difficulties (such as self-harm, eating disorders) and internet-related trauma (such as cyberbullying or online sexual abuse) or internet-related problems (such as excessive use). Our approach pays careful attention to how young people *themselves* regard their online experiences, to understand the possible role of different dimensions of digital skills and online experiences. We interviewed young people who had experienced mental health difficulties from Norway and the UK, recognising that these represent contrasting cultures of childhood as regards parenting, social norms and institutional support structures. Specifically in relation to digital engagement, comparative findings from EU Kids Online suggest that Norway is a culture of childhood empowerment while the UK is characterised by a relatively protectionist approach to childhood (Helsper et al., 2013).



Generally, digital skills are regarded in positive terms, as forms of practical knowledge that can and should be taught in educational or training settings, and that bring wider benefits to individuals, the workplace and economy, thereby contributing to efficiency, wellbeing and success in today’s digital society. Arguably, it is also important to recognise and value digital skills that may not directly contribute to a digital economy or other instrumental outcomes, yet, equally importantly, support an ethic of care and a more tolerant and diverse culture for children and young people growing up in a digital world. As companies, regulators, governments and mental health professionals engage with the complex agenda of online opportunities, risks, regulations and rights, a crucial thread running through debates over policy and practice concerns young people’s digital skills and resilience to anticipate, mitigate or cope with the digital environment now that it has become ‘embedded, embodied and everyday’ in their lives (Hine, 2015).

Figure 2: The analytic focus of the report



While we recognise the value of these assumptions, our specific focus on vulnerable young people leads us to ask also whether some skills have negative outcomes (for instance, by leading a troubled young person into dangerous territory online). Relatedly, recognising that not all intended outcomes can be straightforwardly categorised as positive or negative, can the mediating role of skills help us understand the ‘risky opportunities’ (Livingstone, 2008) or ambiguous pathways that children and young people may take through the digital environment? Some of these arise through the actions of the young people or their peers, but some arise because the digital environment itself throws barriers and problems in their pathway. Those with mental health difficulties may need to develop a critical approach to influencers, or ‘data literacy’ (Stoilova et al., 2020), or

‘algorithm literacy’ (Selwyn, 2022) insofar as the risky-by-design (Jaynes & Wick, 2020) nature of dominant social media platforms drives them down problematic pathways that exacerbate their prior vulnerabilities.

The analytic focus of this report is shown in Figure 2. In the sections that follow, we locate our research questions in the relevant literature, situating digital skills in relation to the developmental challenges of adolescence and the digital engagement and wellbeing of young people with mental health difficulties.

4.2. Youth mental health and vulnerabilities in a digital age

In the UK, ‘one in six children aged 6 to 16 were identified as having a probable mental health problem in July 2021, a huge increase from one in nine in 2017’ (Rainer & Le, 2022: 10). The increase was evident in both boys and girls (NHS Digital, 2020). Furthermore, ‘the likelihood of a probable mental disorder increased with age with a noticeable difference in gender for the older age group (17 to 22 years); 27.2% of young women and 13.3% of young men were identified as having a probable mental disorder’ (NHS Digital, 2020: 3). These UK figures are not matched by the proportion in treatment, however, since fewer than one-third of young people with a mental health disorder received formal treatment in 2017 (NHS Digital, 2020).



In Norway, approximately 7% of children and young people aged between 4 and 14 had a mental disorder in 2016. Approximately 5% of children and young people between the ages of 0 and 17 were receiving mental health treatment (Suren, 2018), and the likelihood of receiving a mental health diagnosis had risen since 2011, especially for older teenagers, and girls (aged 13–24) – who in 2016 reported higher levels of stress, anxiety and depression than boys of the same age (Bakken, 2020; Suren et al., 2018).

Widely dubbed a youth mental health ‘crisis’ (Prinstein, 2022), these statistics point to notable problems now and in the future, since ‘around 50% of all lifetime cases commence by 14 years of age and 75% of cases by 24 years’ (Ma et al., 2022: 1). Responding to such concerns, the Office of the Surgeon General in the USA observed that:

While technology platforms have improved our lives in important ways, increasing our ability to build new communities, deliver resources, and access information, we know that, for many people, they can also have adverse effects. When not deployed responsibly and safely, these tools can pit us against each other, reinforce negative behaviors like bullying and exclusion, and undermine the safe and supportive environments young people need and deserve. (Office of the Surgeon General, 2021: 3)

Several mental illnesses begin during adolescence, such as an eating disorder, bipolar disease and psychosis (Thapar et al., 2015). Increases in ACEs (adverse childhood experiences) have been shown to be associated with a range of mental and physical illnesses (Hughes et al., 2017). The trajectories towards poor mental and physical health are not clear, but adverse experiences affect young people’s developmental pathways in different ways than for adults. For instance, ACEs may lead to concentration and sleep problems, affecting young people’s capacity to learn; further, on- and offline sexual exploitation or bullying may lead to a sense of current threat and lack of trust in others, affecting future social relations.

Engaging in online interaction and community can boost self-acceptance and self-esteem (Best et al., 2014; Uhls et al., 2017), yet it can also contribute to social exclusion and isolation, cyberbullying and sexual abuse (Mars et al., 2020; McCrae et al., 2017). Whether or not digital media exacerbate mental health difficulties among young people is complex and contested (Dunleavy, 2022; Ferguson, 2021; Jensen et al., 2019; Livingstone, 2018; Milosevic et al., 2022; Odgers and Jensen, 2020; Stoilova et al., 2021b). The Office of the Surgeon General builds on a long history of social science research that identifies multiple factors that, in combination, shape young people’s mental health (see Figure 3). As may be seen, these factors include media and technology, coping skills and an array of vulnerability factors at all levels, from individual to societal.

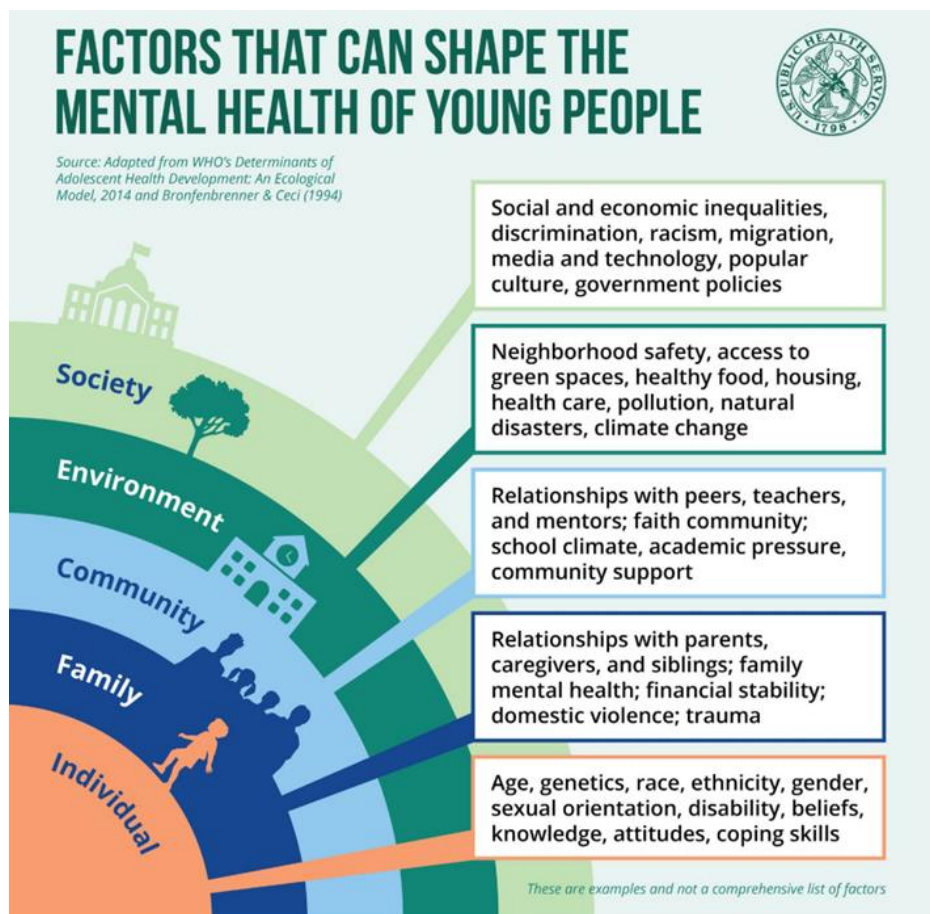
In addition to a multifactor approach, an intersectional perspective helps to integrate research on different contextual factors that affect mental health on an individual level (McCormick-Huhn et al., 2019). This means acknowledging that different social group memberships, such as class, race, sexual orientation and gender, intersect.¹ An intersectional framework implies aiming for a fine-tuned analysis of how social mechanisms interact depending on personal and situational factors. This matters not least because participants’ intersectional positions regulate their access to power

¹ The concept of ‘intersectionality’ was originally developed by black feminists, tied to a critique of the distribution of wealth and power. The concept was applied in legal studies to identify discrimination (Crenshaw, 1989), and later to psychology and social science. Since 2000, the concept has been applied in a more pragmatic sense in psychology and social science to encourage researchers to acknowledge that participants’ identities are multidimensional as they belong to multiple social groups, and that their identities are not necessarily fixed across time and place but may vary depending on the situation. For example, being a young woman can make them more vulnerable in certain situations, but irrelevant in others. In the present report, we apply intersectionality as an analytic tool in the more pragmatic sense.



and privilege, affecting their abilities to assert autonomy and agency. Building on insights from intersectionality, the minority stress perspective posits that external and objective stressors, such as institutional discrimination and belonging to a stigmatised social group, impede coping with stress and thus undermine mental health (Meyer, 2003). Exposure to such stressors leads to the everyday expectation of discrimination, accompanied by hypervigilance and fear. In time, members of minority groups internalise negative social attitudes towards their group, reducing their self-worth.

Figure 3: Factors that can shape the mental health of young people (Source: Office of the Surgeon General, 2021: 7)



However, some individuals ‘have a relatively good outcome despite having experienced serious stresses or adversities’ (Rutter, 2013: 474). The role of resilience in mental health has attracted increasing interest over the last 50 years when it was recognised that ACEs were associated with a range of childhood and adult mental health difficulties (Fonagy et al., 1992; Merrick et al., 2017), and that ‘pathogenic life circumstances’ are not decreasing despite our growing awareness of them (Fonagy et al., 1992). The interest in resilience in children is part of a shift of focus to primary prevention and a push for greater social justice (Fonagy et al., 1992), leading some governments to bring thinking related to resilience into policy. For example, the United Kingdom Council for Internet Safety (UKCIS) supported the establishment of a Digital Resilience Working Group in 2016, which published their Digital Resilience Framework (DRF) (UKCIS, 2020), building on and contributing to the current state of knowledge, including that on how digital resilience and skills are interrelated (Vissenberg et al., 2022).



4.3. Youth and digital engagement

Youth – the period of transition from childhood to early adulthood – overlaps with the developmental phase of adolescence, roughly 12–19 years old, the period characterised by biological, cognitive, psychological and social changes (Sawyer et al., 2018; Stänicke, 2019; Thapar et al., 2015). Puberty involves bodily changes that may evoke curiosity, or anxiety and frustration. Young people often experience overwhelming and rapidly changing feelings and interests, even emotional turmoil, which may partly be explained by the reorganisation and maturation of the prefrontal cortex (Casey et al., 2008), as well as by social and cultural factors. Research shows that young people, especially adolescents, seem to have an increased sensitivity towards their immediate social circumstances, a willingness to take risks with peers, a tolerance of ambiguity and an increased learning potential (Casey et al., 2008; Tymula et al., 2012). These developmental challenges help us understand young people’s risk behaviours such as exploration of online risk content, self-harm, drug misuse, driving too fast or conflict with authorities (Thapar et al., 2015). Risk behaviour may be considered a way of handling overwhelming feelings, interpersonal challenges, testing boundaries and exploring themselves. Over time, the young person develops an increased capacity for coping through problem-solving, affect-regulation and mentalisation, increasing autonomy and a stable self-identity.

Even though young people’s capacity for abstract thinking and problem-solving is more developed than younger children, their strong emotions and unstable capacity to integrate and evaluate complex experiences can have challenging consequences. While they therefore need adults for guidance and structure, this, too, can create conflict since a crucial developmental task is to move from dependency on their caregivers towards independence, autonomy and agency (Erikson, 1968; Gullestad, 1993).² In time, the boundaries and support provided by caregivers are integrated and internalised, and friends and peers become their main source of information, with the peer community becoming important for role exploration, sharing good and difficult experiences, creating feelings of belonging, and getting to know yourself and others’ feelings and thoughts (Stänicke, 2019).

Digital engagement may be understood as an extension of the sphere of both individual agency and peer connections. It represents an important arena for social exploration, learning and coping (Stänicke, 2022). The online peer community may offer a possibility to explore social norms and to gain knowledge of yourself. For example, online exploration through sharing of sexual pictures may be a way of learning about your sexuality. For lonely young people, the digital sphere may become a means of belonging to a peer community (Stänicke, 2022). The digital arena may serve as a substitute for a relational context or as a potential space for finding a pathway to autonomy and identity. This account suggests that on- and offline risk behaviours may be a way to test social norms and borders between what is ‘accepted’ and ‘unacceptable’, pain and pleasure, the private and the social, and self and others. For example, an exploration of self-harm content online might reflect a need to belong, to be understood, to share problems, to feel useful or to get support. In consequence, examining young people’s online experiences can increase our understanding of developmental pathways, and of how young people cope with risk and shifting emotions, how the digital environment can be an arena for learning and experimentation, and how digital engagement may influence identity and promote autonomy.

² Here we note that ‘The concept of agency has been linked to the motivation to act and the effectiveness to regulate behavior, such as that modelled in social-cognitive theory, self-determination theory, cognitive-affective system theory of personality) and ego-depletion theory. Hence, increasing agency has been argued to enhance people’s motivation to act, and to control their behavior more successfully in line with their goals’ (Renes & Aarts, 2018: 193).



4.4. Digital skills and mental health in young people

Although there has been considerable research on young people's mental health and vulnerabilities in relation to the digital environment, as outlined above, most research does not explicitly inquire into the role of digital skills, which is our focus in this report. The Europe-wide EU Kids Online network locates the role of digital skills as a key mediator in children and young people's digital lives (see Livingstone et al., 2014; Smahel et al., 2020). Building on a multidimensional and intersectional perspectives, and recognising the importance of young people's development, the EU Kids Online model posits that, as children grow older, they tend to be increasingly active online, exploring a wider range of opportunities (theorised as the ladder of online participation; see Livingstone et al., 2019) and also encountering more and greater risks.³ As they gain more and deeper digital skills, both through formal education and informally, by exploring their online experiences and interests, they encounter more online risks and opportunities.⁴

What is meant by digital skills playing a mediating role? Importantly, the research shows that not all risk results in harm (Livingstone, 2013): mediating between risk and harm is a host of on- and offline vulnerability and protective factors, importantly including digital skills as well as prior mental health difficulties. This complicates the common assumption that exposure to risk is necessarily problematic and invites attention to the circumstances under which some risk exposure may be the means by which children and young people learn to cope and build resilience, should their maturity and circumstances permit (Rutter, 2013). A parallel argument may be made about the relation between online opportunities and actual benefits to children and young people, and again, digital skills are shown to play a crucial mediating role.

How, then, might this work differently for young people facing mental health difficulties? Drawing on the 2010 EU Kids Online survey of 25,000 European 9- to 16-year-olds, Laurinavičius et al. (2014) examined vulnerability factors in relation to online risk of harm. For the risks of seeing sexual content online (more common among boys) and being bullied online (more common among girls), children with more emotional, social and behavioural problems were both more likely to encounter these risks and to report being upset by them. However, the strongest predictor of both risks was encountering the equivalent risks (sexual content or bullying) offline. Similarly, analysis of the Norwegian 2018 EU Kids Online survey with 1,000 children found how experiencing online aggression (cyberbullying) had the greatest impact on young people experiencing unwanted online sexual communication, which indicates a pattern of vulnerability that migrates across different risks (Barbovschi & Staksrud, 2020). The hypothesis suggests a negative spiral in which offline risks can lead to online risks, especially among vulnerable children who are also more likely to be upset.

Although research on children and young people's online experiences typically positions digital skills as a crucial mediator between access and use on the one hand, and the online risks and opportunities that influence wellbeing outcomes on the other, identifying and measuring digital skills in a survey is not easy. EU Kids Online 2020 research asked 12- to 16-year-olds to self-report on 11 distinct digital skills, finding that they were most able to install apps on a mobile device (90%) and remove people from their contact lists (89%), but struggled to check if information online was true (59%) or edit online content (43%). Advancing the EU Kids Online

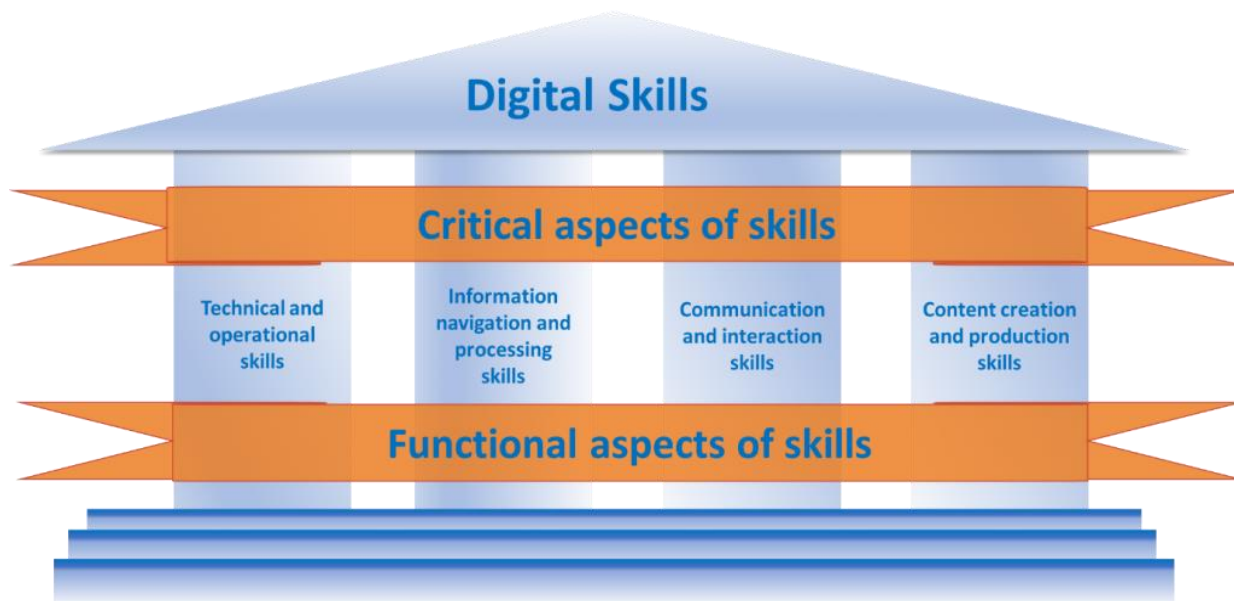
³ Gender differences are less marked in relation to use, skills, opportunities and risks. For instance, one in four girls (26%) and boys (23%) had experienced something that had bothered them online in the past year (Smahel et al., 2020). Some differences exist – for example, boys report greater exposure to sexual content online, girls report seeing more self-harm and pro-anorexia content. Recent research suggests the effects on wellbeing are also age-dependent (Orben et al., 2022).

⁴ Note that, from the user's perspective, what counts as a risk or an opportunity may differ from the (adult) observer's perspective, and some activities can be called 'risky opportunities' (Livingstone, 2014).



approach, ySKILLS developed a multidimensional model of youth digital skills, the Youth Digital Skills Index (yDSI). This model includes ‘four dimensions that constitute digital skills: (1) technical and operational skills; (2) information navigation and processing skills; (3) communication and interaction skills; and (4) content creation and production skills’ (Helsper et al., 2021: 5) – see Figure 4.

Figure 4: yDSI – the four digital skills domains incorporating functional and critical aspects
(Source: Helsper et al., 2021: 5)



These dimensions can be regarded as ‘building blocks’ for more complex skill development. For instance, coping with online risks may require a mix of information processing and communication skills; also, helping others face online challenges may be considered an advanced form of communication and interaction skills. As this implies, skills are complex phenomena that encompass both critical knowledge and practical capacities to enact that knowledge. Helsper et al. (2021: p. 5) explain this further:

[A]cross all four dimensions a distinction should be made between being able to use the functionalities of information and communication technologies (ICTs) (functional aspects) and understanding why ICTs are designed and content is produced in certain ways and being able to use that knowledge in managing interactions in and with digital spaces (critical aspects).

4.5. Country contexts for the research: Norway and the UK

Although digital technologies are becoming more prominent in children and young people’s lives everywhere, the nature and extent of their role and significance varies considerably depending on cultural, economic, geopolitical and other factors that differentiate children’s circumstances and life chances both across and within countries. Hence, country contexts matter:

- In Europe, 80% of internet users aged 9–16 go online with a smartphone or mobile phone daily, with nearly 60% using their phone several times a day, though 20% use it less often (Smahel et al., 2020). Gender differences are marginal, but older children use the internet far more than younger children.⁵

⁵ Globally, one in three children and young people have internet access at home, but in high-income countries, the proportion rises to nine in ten (UNICEF & ITU, 2020). In addition to the digital exclusion of one in ten children, there



- In Norway, 86% of 9- to 16-year-old internet users go online with a smartphone daily, and 75% of girls versus 67% of boys use it several times a day, as do 84% of 12- to 14-year-olds and 93% of 15- to 16-year-olds. While these statistics are not out of line among other wealthy European countries, of all countries where time estimates are available, Norwegian children report spending the most time online (at 219 minutes per day) (Milosevic et al. 2022; Smahel et al., 2020).
- In the UK, 71% of all 8- to 11-year-olds, 94% of 12- to 15-year-olds and 98% of 16- to 17-year-olds use a mobile phone to go online – and almost all of these are smartphones (Ofcom, 2022). CHILDWISE (2021: 10) reports that 13- to 16-year-olds ‘go online for almost four and a half hours a day, almost all accessing in their own room, with three in five going online when they are out and about.’

Although the opportunities of internet access and use are the driving force behind innovation and adoption, when it comes to children and young people, much of the research effort has been devoted to examining the risks that accompany such opportunities. Staksrud and Livingstone (2009) applied risk theory to children’s experiences of the digital environment by distinguishing risk assessment (the likelihood and severity of risk), risk evaluation (the acceptability of risk) and risk management (the process of reducing the risk likelihood or severity to an acceptable level) and arguing that all three are influenced by cultural values and norms regarding children and childhood. These cultural factors shape children’s actual experiences (what they find unusual or upsetting) and their coping responses (what they disclose to adults, how they respond to risk and what they expect by way of support).

To examine cross-national differences empirically, the EU Kids Online network analysed the results of its 2010 pan-European survey to reveal clusters of countries based on children’s online risks and opportunities as well as comparative differences in digital skills, parental mediation and children’s coping responses, among other factors (Helsper et al., 2013). This revealed four country clusters: ‘protected by restrictions’ (especially Western European countries, including the UK); ‘supported risky explorers’ (Nordic and Northern European countries); ‘semi-supported risky gamers’ (mainly in Eastern Europe); and ‘unprotected networkers’ (middle European countries). As Smahel et al (2020: 133) noted,

What seemed to make the difference between the first two clusters was the cultural balance struck differently in different parts of Europe between favouring children’s civil rights and freedoms online (to explore, express themselves, etc.), even if this may put children at risk, or favouring a more protective approach given a context of online risk and associated parental anxiety, even if this was at the cost of children’s online opportunities. Children in the other two country clusters tended to experience both online opportunities and risks, because parental mediation was less, especially in the case of the ‘unprotected networkers.’

These differences reflect not only children’s and parents’ activities and values, but also national policy and implementation. While the first two clusters of countries have invested more in safer internet practices than the other two, O’Neill (2014) found that ‘protected by restrictions’ countries rely more on legal and regulatory safety frameworks while ‘supported risky explorers’ countries prioritise public sector funding and involvement in enabling children’s internet use, especially educational initiatives.

Notwithstanding the research reviewed thus far, it is the case that our understanding of the relation between the mental health of young people and the digital environment is at an early stage. Task 6.4 therefore took an exploratory approach to the complexities of young people’s digital

is considerable variation in the quality of access to devices and connectivity for the nine in ten with home access, resulting in considerable variation in use.



engagement, seeking to recognise their perceptions and experiences, and to contextualise these in relation to their mental health difficulties.

5. Research methods

Research on mental health and digital experiences often relies on questionnaires with predetermined answers and focuses mainly on negative experiences (Odgers & Jensen, 2020). Qualitative research can complement context-independent results from quantitative studies by exploring, with open questions and in-depth analysis, how young people make sense of mental health difficulties and involvement with risky content in their everyday life. This has the potential to examine how digital skills simultaneously open up new pathways as well as introduce new risks, potentially resulting in some upsetting circumstances, and yet also shaping young people's unfolding identities and search for belonging. In other words, we anticipate that, while digital engagement can intensify the problems of those with mental health difficulties (Moreno et al. 2022), young people can learn and grow through these challenging experiences, contributing to their diverse biographical journeys.

To explore the relevance of digital skills and help-seeking in aiding or undermining young people's coping and resilience, we conducted in-depth interviews with young people with mental health difficulties, selected for diversity as much as possible on their views and experiences of being engaged in risky content online such as self-harm and promotion of anorexia (pro-ana), or having experienced excessive internet use, cyberbullying or online sexual abuse. Since these young people had experience of a variety of support options, including mental health professionals, charity organisations, a school counsellor and online support groups, we also asked how helpful this had been in relation to their digital experiences.

5.1. Research questions

1. What is the relevance of different dimensions of digital skills in the lives of young people experiencing mental health difficulties?
2. How do young people experience the role of digital skills in aiding or worsening their mental health difficulties, including their capacity to cope?
3. What recommendations can be drawn from young people's experiences that may inform mental health professionals, schools, companies, regulators and the public to support young people's digital lives?

The report authors comprised a research team in each country with responsibility for the local administration of the project as well as expertise in the cultures of childhood, parenting and wellbeing in each country. We interviewed a total of 62 young people aged 12 to 22 (30 in Norway and 32 in the UK). These included young people who had experienced varying degrees of severity regarding their mental health difficulties, most of whom had received treatment in the recent past. In the Norwegian sample, all had been diagnosed with a mental illness. The interviews were conducted either face-to-face or online (depending on the young person's preference and what was feasible for the organisation) and lasted between 45 and 105 minutes. In addition, in the UK two focus groups with young people were conducted (see Appendix 2 for a detailed description of the British and Norwegian samples).

5.2. Research ethics

Since the young people were recruited from a vulnerable group, both in terms of age and mental health, we worked systematically to maintain safeguarding throughout the process. All our research was conducted according to relevant ethical guidelines and principles. In addition, proper



protocols for collecting and securing sensitive and personal data were established and followed. Further, the UK and Norwegian research teams underwent some different procedures, in accordance with their national ethical guidelines:

- The UK team obtained approval for their research ethics plan and data management plan from the Research Ethics Committee at the London School of Economics and Political Science (LSE) (Ref: 23512/30.07.2021).
- In Norway, the team first sought approval from the Regional Committees for Medical and Health Research Ethics, which concluded that the current study was out of their scope (Ref: 278718). The team then received approval of the data management plan from the Norwegian Centre for Research Data (Ref: 705571). In addition, the project and collection of data was in accordance with the Norwegian national guidelines for research ethics in the humanities and social sciences (NESH, 2021).

For ethical reasons, recruitment focused on young people in therapy or in the ‘recovery stage’ or with ‘mild symptoms’ and involved careful consideration of each participant’s wellbeing. All interviews were conducted by clinical psychologists in the national ySKILLS team (Norway), or a psychiatrist was included in the interview team (UK) to ensure support for the participants while talking about sensitive topics, and especially if suicide risk was detected and contact with the health system was needed. Young people’s wellbeing during the interview was carefully monitored and appropriate adjustments were made. At the end of the interview the young people were asked how they felt about engaging in the interviews, providing an opportunity to discuss possible adverse effects. All participants were offered professional follow-up mental health support if needed.

Consent was gained from the young people via a consent form (either electronic or hard copy) or verbally during the interview. For young people under 16, we also asked for consent from parents or caregivers. When sensitive issues were mentioned during the interview, additional permission to discuss them was sought, and the participants were reminded that they could refuse to answer any question.

Each interview ended with a debrief to ensure the participants were feeling well. Information about available support was provided (also available on an information sheet). Each team met frequently to review how the interviews were going, and if any wellbeing or safeguarding concerns should be addressed relating to the participants or researchers. Following this procedure, no interviews had to be terminated and no young people needed further counselling or referrals because of the interviews.

5.3. Fieldwork: recruitment, sampling and interviewing

The two teams collaborated frequently and coordinated their approach, analysis and reporting. The fieldwork procedures followed in each country are described as follows.

We aimed to recruit a total of 60 young people aged 13 to 19 across the two countries. In practice, the target groups were hard to reach, and recruitment was slow, likely due to a combination of factors, including COVID-19 fatigue and personal difficulties related to poor mental health, especially during the pandemic (NHS Digital, 2020). Hence, we adopted a flexible approach to the sampling and recruitment.

The final sample comprised 62 young people aged 12–22 (46 girls and 16 boys). Most of the participants were aged 16–19 (see Table 1). This includes 32 UK young people aged 12–22 (19 girls and 13 boys) and 30 Norwegian young people aged 13–20 (27 girls and 3 boys).



Table 1	AGE DISTRIBUTION OF THE SAMPLE		
Participant age distribution	15 years or younger	16–19 years	20 years or older
Total sample	16 participants (9 girls, 7 boys)	44 participants (35 girls, 9 boys)	2 participants (young women)
UK sample	10 participants (4 girls, 6 boys)	21 participants (14 girls, 7 boys)	1 participant (young woman)
Norwegian sample	6 participants (5 girls, 1 boy)	23 participants (21 girls, 2 boys)	1 participant (young woman)

In spite of our efforts to recruit an equal number of boys and girls, the sample has more female participants. Participants in both countries reported a challenging relation to digital technology and/or social media. The final sample included two young people in their early 20s, and a few whose mental health difficulties were mild or difficult to ascertain (7 participants, 6 boys and 1 girl, all in the UK). Given the aims of this report, our analysis focuses primarily on those young people aged 13–19 who reported mental health difficulties, had received a clinical diagnosis, or were in contact with professional mental health services (see Appendix 2 for sample information).

Norway

To recruit the participants and conduct the in-depth interviews, we collaborated with a network of local leaders in child and adolescent mental health clinics, including Children and Adolescents' Mental Health Outpatient Services (BUP - Barne- og Ungdomspsykiatriske Poliklinikker), throughout Norway. A total of 75 clinic leaders and six clinical psychologists working in private practice or community services were approached and asked to distribute information leaflets to the therapists and eligible young people in their clinic. The leaflets explained in accessible, child-friendly language that participation was voluntary, what taking part would involve, anonymity and confidentiality and how the information would be used. The therapists in each clinic recruited young people between the ages of 13 and 20 who had had challenging online experiences, such as cyberbullying, sexual abuse online and involvement in self-harm content online.

In addition, one user group for young people with adverse life experiences and mental health difficulties was approached as part of the recruitment process. The research team distributed information about the project in an internal meeting, and interested young people were given contact details for the research team. A total number of 14 participants were recruited through this organisation. Finally, one participant was recruited through the reference group for young patients at a local hospital. The Norwegian fieldwork took place between November 2021 and April 2022.

Young people who were interested in participating were contacted by the research team and offered the choice of a face-to-face or online interview. Most participants preferred a face-to-face interview. Some of the interviews took place at the mental health clinic, in the young people's homes or at the university. All interviews were conducted by one clinical psychologist in each instance. In order to maintain safeguarding, all participants were asked how they had experienced the interview. The participants were also encouraged to contact the interviewer if they needed further follow-up. In addition, all participants had a local clinician or adult they could contact if the interviews raised some sensitive issues. The Norwegian participants did not receive any financial incentives.



UK

To recruit the participants and conduct the in-depth interviews, we worked in partnership with a child psychiatrist specialising in children’s mental health difficulties as these relate to the internet. Recruitment was via gatekeepers. We approached several non-governmental organisations (NGOs) that support children and young people’s mental health, some specialising in supporting young people with specific mental health disorders, while others offer support for young people with more general or wide-ranging mental health difficulties. Several gatekeepers showed interest in supporting the project, and two of these became actively involved.

The gatekeepers distributed information leaflets about the project, either contacting young people directly or via mailing lists and social media channels. The leaflets explained in accessible, child-friendly language that participation was voluntary, what taking part would involve, anonymity and confidentiality and how the information would be used. The young people who were interested in participating were given contact details for the research team and offered the choice of a face-to-face or online interview. In the preparation meetings with the gatekeeper organisations, we discussed ethics, safeguarding and mental health. For ethical reasons, only young people in the ‘recovery stage’ or with ‘mild symptoms’ were invited to participate, and the recruitment decision involved careful consideration of each participant’s wellbeing.

The fieldwork took place between November 2021 and April 2022. Recruitment was through an NGO based in a southern city supporting young people, including those with mental health difficulties, and a northern city NGO that organises a youth mental health-related apprenticeship scheme. In spite of joint efforts with these partners, recruitment was slower than anticipated. We held additional online focus groups to reach more participants, screening those with the target mental health difficulties for follow-up interviews. Each partner organisation first hosted a focus group with the research team and young people, and then followed up with invitations for individual interviews with the participants and additional young people.

The interviews were conducted by a team that paired a mental health professional with a social science researcher. In the northern city, the professional was not in the interview but was present outside the room and talked to the young person before and after. In a small number of cases we conducted paired interviews, instead of individual ones, following the young people’s preference and accommodating to what the organisation was able to facilitate. For the online interviews, the young people were given a choice about whether to switch the camera on or off, and most opted to keep it off.

All participants received follow-up contact from the partner organisation a few days after the interview to check their wellbeing. Each southern-city-based participant received a £30 voucher for their time, as recommended by the organisation. Those in the northern-based city participated as part of their apprenticeship and were offered juice and snacks.

5.4. The interview topic guide

The interview topic guide was developed jointly by the Norwegian and UK teams in consultation with other ySKILLS members and child mental health and research experts. It was informed by a pilot project on young people’s mental health and digital technologies carried out by the UK team, which involved a rapid evidence review and interviews with relevant experts and three focus groups with young people with direct lived experience of mental health difficulties (Stoilova et al., 2021b).

The guide was developed in English and then translated into Norwegian. The questions were pilot-tested to secure relevance and small adjustments were made – for example, the skills section was



developed further to better capture young people's digital competencies. In addition, based on feedback from the pilot interviews some of the wording was changed, to secure a child- and people-friendly language that helped participants understand the aim of the interview.

The questions were open-ended throughout, and we sought to encompass both positive and negative aspects of digital technology. The interview topic guide included four main parts (see Appendix 3):

1. Questions designed to map what digital platforms young people used on a daily basis, and how this is related to mental health.
2. Young people were asked to describe a particularly challenging situation online, in order to explore more in detail how technology and the internet is infiltrated in daily life. The purpose of asking questions about concrete experiences was to explore how they are affected by internet use and handle challenging situations.
3. A distinct and detailed focus on young people's accounts of their digital skills, including both explicit reflections and, more implicitly, discussion of what and how they learn through their digital engagement.
4. Finally, we explored whether they seek advice from others when facing challenging situations online, and what advice they would give to their peers, parents, caregivers, therapists and tech companies to minimise online risk, including the changes they wished others to make in policy, design and practice.

In practice, the interviews were flexibly conducted to follow the flow of the young people's ideas and experiences, while ensuring that the main questions were asked, and to pursue certain areas in greater depth as they emerged in the conversation. Although the young people struggled with mental health difficulties, several had had treatment experience, and many talked about their symptoms and problems. We did not ask for the specific diagnosis in each case – the focus was to explore how they made meaning of digital engagement and mental health difficulties in their everyday lives.

5.5. Analysis

The interviews with young people experiencing internet-related mental health difficulties were rich and wide-ranging, encompassing multiple dimensions of their lived experiences. All interviews were audio-recorded, transcribed and anonymised. All personal data was stored safely and securely following the requirements of the host institution, the General Data Protection Regulation (GDPR), and the Data Management and Collaboration Agreement of the ySKILLS project with the University of Leuven.

The interviews were analysed using thematic analysis (Braun & Clarke, 2006), as this was suitable for exploring young people's experiences of mental health in relation to the digital environment. This is an inductive approach, which allows the data to inform the themes. At the same time, the thematic analysis enabled a deductive approach, as it offered some analytical steps to organise the data according to some initial research interests.

Five of the Norwegian transcripts were translated into English, and detailed notes from all interviews were made available in English to enable transparency across the two teams and a comparative perspective. The UK teams exchanged all transcripts. Joint online analysis workshops were held to synchronise the coding and facilitate the analysis.

Informed by the Consensual Qualitative Research (CQR) model (Hill et al., 2005), the Norwegian team divided themselves into a primary analytic team and an auditor to check the consensus



judgements of the team, and to ensure that the analysis was plausible and understandable, that important themes were not overlooked and to prevent bias. The UK team achieved a similar end by conducting separate analyses and then comparing and discussing the results to reach agreement. Across the Norwegian and UK teams, we analysed the interviews individually (getting familiar with each transcript), and then together, following the steps in thematic analysis – making notes with initial ideas to increase self-reflexivity (Levitt et al., 2017), generating initial codes, and collating data relevant to each code, organising codes into potential subthemes and themes. The teams consisted of researchers with different knowledge fields (media and psychology) and different theoretical perspectives, which ensured that the data was discussed and analysed with several perspectives (‘researcher triangulation’; see Flick, 2002).

In developing the interpretative themes, we sought to avoid an overly-simplistic binary approach to benefits versus harms, recognising the often ambiguous role played by digital skills and hence, young people’s ambivalence about some of their digital engagement. The focus of the analysis was on gaining insights into the role of different dimensions of digital skills in aiding or worsening internet-related mental health difficulties. We took an inductive approach (via bottom-up themes and developing analytic questions) to see what the participants really wanted to talk about. By developing a nuanced account of how digital and social skills intersect with the lived experiences of mental health in a digital world, we hope also to shed light on how certain digital skills can be harnessed to promote opportunities over risks. During the analysis process, we became inspired into relating the data to the four dimensions of the ySKILLS model, the importance of intersectionality, developmental challenges during adolescence, and also recognising barriers for disclosing trauma to others.

This report uses selected quotations, lightly edited for clarity, to exemplify findings. In a footnote related to each quote, we add information on the type of mental health difficulties and risk experience online the particular young person experienced. For ethical reasons, they have been anonymised. The Norwegian quotations have been translated into English.

5.6. Methodological innovation

The research was innovative in complementing the population-wide ySKILLS survey with the specific study of hard-to-reach groups, namely those with direct and in some cases considerable experience of mental health difficulties. These shed new light on the role of vulnerability for young people’s wellbeing and digital resilience. Rather than regarding these as ‘voices from the margins’, we interpret the findings as challenging generalisations about ‘all’ or ‘typical’ young people, refusing to ‘other’ those with mental health difficulties. The findings document important diversity and nuance in young people’s experiences of mental health in a digital world, including how these fluctuate across time and circumstance.

Second, since the research took place during challenging times when lives (and research) suddenly became digital by default, the study offered a timely opportunity for young people to reflect on the challenges faced during a pandemic that impacted on them substantially. Their accounts reveal their investment in discussing mental health openly and critically, and their interest in sharing experiences of learning how to balance the online opportunities that support their wellbeing with the risks that might undermine it. Their stories testify to the value of including young people in public discussion of future measures to support digital resilience, mental health and wellbeing.

Carrying out this research with vulnerable groups, on a sensitive topic, and some via online interviews posed many practical and ethical challenges that were addressed by the joint efforts of our interdisciplinary collaboration between clinical psychologists and media scholars. We evolved a safe, ethical research process that enabled young people to discuss mental health vulnerability in ways that they found very helpful, according to the post-interview evaluation that formed part of



the follow-up contact with participants. This in and of itself was vital for our commitment as researchers to child rights and youth voice.

The multidisciplinary nature of the research team was also innovative. By and large, research on youth mental health in digital environments is conducted by those who are experts in youth mental health or in digital environments, but rarely are these areas of expertise integrated. As a result, either ‘mental health difficulties’ or ‘the digital environment’ or both remain vague and unexplored in studies in this field. By encompassing multiple forms of disciplinary and professional expertise, the authors of this report were able to bridge knowledge on media infrastructure, on the one hand, with the nature of young people’s mental health, on the other, enabling the new insights documented in this report.

In the presentation of findings that follows, we have not sought to describe all that the young people told us, as many of their experiences are common to the wider youth population, and documented in recent publications (Dickson et al., 2018; Haddon et al., 2020; Hollis et al., 2017; Odgers & Jensen, 2020; Stoilova et al., 2021b). Rather, we have sought to focus the presentation of findings on experiences that appear distinctive to young people with mental health difficulties, to contribute new insights to the existing literature. We focus on four main themes:

1. Understanding of digital skills among young people with mental health difficulties.
2. Engaging with the risky-by-design affordances of the digital environment.
3. How young people with mental health difficulties learn digital skills.
4. Digital experiences of coping.

6. Findings

6.1. The digital skills of young people with mental health difficulties

Consistent with our qualitative, bottom-up approach, we consider the young people’s own understanding and ways of talking about their digital skills to address the first two research questions: what is the relevance of different dimensions of digital skills in the lives of young people experiencing mental health difficulties, and do the different dimensions of digital skills play different roles in relation to young people’s mental health? We organise the findings in this section according to the four dimensions of the ySKILLS model – technical and operational skills, information navigation and processing skills, communication and interaction skills, and content creation and production skills. It is important to note, however, that the young people rarely name specific skills explicitly, and they discuss them in ways that span digital and non-digital contexts and also reveal their interrelations. Hence it is not straightforward to map their perceptions onto the yDSI quantitative indicator (Helsper et al., 2021).

Technical and operational skills

Because we were interested in how young people understand digital skills, we asked them (although not until half-way through the interview) what these words meant to them. Typically, it was the technical and operational skills that came to mind – knowing how to set up a phone, choose software, managing devices and passwords, and so forth. For young people with mental health difficulties, proficiency in such skills can be particularly important, including for using technological and operational skills to manage the ‘hidden’ rules of self-presentation:



“I am sure that it [digital skills] is to know how to edit pictures and videos and such things. But also to make a good signature on Instagram, and to have a nice profile with a cool profile picture, and to know what picture does not suit as a profile picture ... when you should use an emoji and not, when to use a punctuation mark.”⁶

This girl further explains that not only do such skills mean that

“You are good in what you are doing, or that you post something that people are interested in [but also that ...] you can make reflections about how you use social media and things and that you know how to protect yourself from harmful content, and that you know how to limit your time on the net and don’t get addicted.”

The value of technical digital skills for mental wellbeing explains why the young people shared with us many thoughts on tactics for safety, self-protection and positive mental health in digital environments. As one young woman explained, it is not only *“that you know apps, you know your phone. So you have skills around it”*, but also:

“You need skills in how to handle situations digitally as well. For example, with nude photos or with an unknown person who is a little nasty, or ... that you manage to take care of yourself. And stand up against it. That’s also a skill. I think you just really have to know what you want. That is, that you understand ‘what do I want?’ ... That one realises ‘what is it I want to achieve?’”⁷

What these two quotes illustrate is the young people’s thoughts that digital skills are not only mastering technical aspects, but also being able to reflect on how you use social media and the effects it has on you. This requires some level of personal insight into what is good for you. You may have the technical skills to block out harmful content or people, but in order to use these skills you have to have personal skills, and perhaps also some social support to put these into use.

Indeed, the use of skills to limit their digital exposure – reducing hostile interactions, ‘addiction’ and efforts to ‘detox’ – were popular themes. For example, the young people talked with enthusiasm of the technical skills needed to block people or limit their social contacts to those who were positive and supportive, making better use of available privacy settings and reporting mechanisms provided by the social media platform, learning to check the comments on a video to help interpret the context, muting keywords on Twitter that ‘trigger’ negative emotions, to ‘game’ their content feed, understanding how screenshots can put you at risk, and much more. A 15-year-old girl with anxiety disorder (UKF17) explained to us how *“on Instagram there’s a little green dot that literally says if they’re active or not, and you can turn it off, which I got turned off on my main account so not anyone can just see if I’m online. But for close friends on different accounts, you can show them that you’re online”*. Having the technical skills to treat friends differently from ‘random people’ was considered vital, to facilitate both safety and opportunities for intimacy:

“On Instagram, I have two accounts. I have a more public account that has more people that I might not be close with. But I also have a private account with, like, 20 people, like, my closest friends. I feel like I can reveal a bit more about myself on my private account. The pictures that I post don’t have to be perfect. They can be funny videos.”⁸

⁶ Girl, 16, eating disorder, depression, self-harm, suicidal ideation, online pro-ana and self-harm content (NF04).

⁷ Young woman, 19, online and offline sexual abuse and unwanted sharing of nude pictures (NF27).

⁸ Girl, 14, history of a subclinical eating disorder and depressed mood (UKF15).



While many young people are attentive to specific technological features of social media, for those with a problematic history, it can clearly be particularly vital to gain the technical knowledge to interpret them:

“For instance, if they have the 69-name then you obviously understand that they are just after something sexual. ... Or if they are called something like daddy or things like that then it is often for sexual reasons. Or if you have a pill-emoji or a leaf-emoji, then they are often drug dealers and stuff like that.”⁹

In another instance, a 16-year-old girl who had experienced online threats and sexting was glad to know how to disable geolocation tracking in addition to blocking someone who knows where you live.¹⁰

Some technical skills are a struggle and can be a cause of negative emotional experiences for young people. We heard talk about difficulties with the functional aspects of technology – crashing laptops, poor connectivity, distrust of cloud storage – as well as difficulties with hackers or device overuse (because of eyestrain or, more commonly, ‘addiction’, doubtless because they had heard the term used of them by parents and teachers). Some struggles arose because the young people were ambitious in their desire for technical mastery – wishing to engage with cryptocurrency and NFTs, or live stream their gameplay on Twitch, or monetise their social media engagement through maximising followers. Some arose because of the opacity of the digital interface:

“Actually, there was this thing, I think it’s a spam account. I’m not really sure. It didn’t have a name to it, but they tag a lot of people and I assume it’s just randomly. And it was a bit of a random person. It wasn’t an offence or anything, but it was just a bit strange. But I didn’t know how to approach the account because they have my followers, I didn’t want to get hacked. I wasn’t too sure so I just left it, and I thought people can see clearly that it was just them spamming the comments.”¹¹

What’s striking here is that while the technology is hard to manage (Is it a spam account? Who is tagging people? How can she disconnect the account without getting hacked?), the social relationships appear easier. This 14-year-old (UKF15) is more confident that her contacts will understand what’s happening and ignore it than she is of dealing with the technical problem.

In addition to managing relations with friends or strangers, also important for these young people are the technical skills to sustain privacy from parents. A 17-year-old girl explained that *“when I was younger my mum would do weekly checks on my phone, when I was 13, 14. And I would just delete the apps if I didn’t want her to see anything on it.”¹²* She would then reinstate the app and continue her social media activities. Similarly, she explains that her father *“tracks my phone. He knows where I am at all times. That’s just because he’s anxious.”* In consequence, she explains, *“I learned how to use the private browser for Google pretty quickly when I decided I was going to ask those questions about autism or contraception.”* Given that this girl is autistic and had been groomed online and subsequently sexually abused, such avoidance tactics are poignant: both the young person’s desire for privacy and the parents’ anxiety to keep her safe are familiar themes in adolescence. What is new is that the parent–child dynamic is played out by each gaining digital skills, although the daughter appears more effective at countering those acquired by her parents.

⁹ Young woman, 18, depression, bullying and self-harm, cyberbullying, online self-harm content, online sexual abuse (NF20).

¹⁰ Girl, 16, PTSD, online sexual abuse (NF14).

¹¹ Girl, 14, history of a subclinical eating disorder and depressed mood (UKF15).

¹² Girl, 17, autism spectrum disorder, sexual abuse, (UKF04).



For the digital skills to navigate and game algorithms, interpret ‘likes’, deal with viral or triggering content, mask their tracks or hide in plain sight, young people must have specific knowledge of the design of technology as well as of themselves and others in their social milieu. However, the value of such skills for the young people themselves often lies in the potential for managing social interactions in digital environments. Although education policy often promotes technical and operational skills as valuable for future employment in a digital labour market, this was rarely how the young people themselves framed such skills. Rather, we suggest that young people with mental health difficulties are especially highly motivated to explore the technical functionality of the social media and digital devices that they use, to protect themselves and gain control over their digital lives. We develop these themes below, showing how their technical skills are harnessed to their communication and interaction skills (later in this section), and how they relate to a knowledge of the technological affordances of apps and devices (Section 6.2).

Information navigation and processing skills – search with a purpose

Certain digital skills have a particular significance for young people with mental health difficulties. Their ability to search for useful information, for instance, and to evaluate its veracity, may enable them to find specific information relevant to their problems, diagnosis or treatment.

“I have been raised by the internet, because ... you know, sexual education for example, everything I know, I have learned from the internet ... because, you know ... the internet is magic. You can find nearly everything on the internet.”¹³

“For me, the internet is literally endless knowledge at the end of your fingertip. You can just search for any question you want and get answers. There’s so many ways of finding information on the internet that are useful.”¹⁴

“If you type in anything about diets or eating it brings up an eating disorder helpline.”¹⁵

They may hunt for expert sources, but peer-provided information is also valued, especially given the niche information these young people desire:

“I’d just type out what I’m thinking on Google and then most often you get something like either Student Room or Quora or some sort of online chatroom where a lot of people have similar opinions. ... When I felt like I was going towards a binge-eating disorder, I definitely went on TikTok to see what was happening or if it was a similar thing. And that’s where you get videos, like Anorexia recovery or binge-eating recovery, where it’s like, yes! And then you read the comments section there as well.”¹⁶

These young people may need to find trustworthy information online for sensitive reasons, making confidential access vital:

“When you go online, you develop skills in using the internet in general and what apps to use and how to find things. I feel that I have found ... especially in the closed group. ... If you have a difficult time, you can get help and tips and support: ‘You can do that’ or ‘find that’ ... so it is a way of helping each other.”¹⁷

¹³ Young woman, 19, depression, self-harm, suicide ideation, online self-harm content (NF08).

¹⁴ Boy, 17, no disclosed mental health difficulties (UKM05).

¹⁵ Young woman, 18, sexual abuse (UKF07).

¹⁶ Girl, 17, history of probable binge-eating disorder and suicidal behaviours (UKF10).

¹⁷ Girl, 17, eating disorder, self-harm, online sexual abuse, online self-harm content (NF07).



But determining trustworthiness is challenging: “it’s really hard to find that line between who’s telling the truth, who’s hopping on a trend and where people need help”.¹⁸ A 17-year-old girl relied on her information skills to understand her own situation, explaining that:

“I’ve learned so much about autism from being online and people sharing their personal stories, and I’ve identified with it really well. Even though I was already diagnosed, I understand so much more about how females represent autism.”¹⁹

As the young people acknowledge, finding the right information can be difficult or problematic:

“I do not think you do better by reading about other people’s suicide thoughts, their wish to die, or how much weight they have lost. It is not nice content. I think it affects you. But I also think it makes you less lonely. I think many people feel that, and it is a nice feeling to feel less lonely. If it had only negative consequences, I do not think people would have used so much time on this content.”²⁰

But, on the other hand, much information is unreliable or misleading:

“I’ve just been on TikTok and I just typed into the search bar, mental health, and loads and loads of the videos are not showing what it’s actually like. ... It’s really difficult to find things that actually explain things like that.”²¹

Further, while searching for information on mental illness is tempting, it can compound pre-existing problems. We heard some ambivalence about being able to access such information at your fingertips:

“I think that if some things become normalised that are not normal, it becomes another ‘normal’, because everyone is struggling. You compare yourself with others and feel that you are not struggling enough, because someone always has it worse than you.”²²

“I think self-diagnosis can be good because it is so hard for some people to get diagnosed, but it can definitely make things worse.”²³

“I’d say one of the things my generation or people my age are very good at, is self-diagnosing. So, they all think they’ve all got some sort of disorder, or some sort of depression ... so it’s now an aesthetic to look depressed, and anorexic, and live off of Monster [energy drink] and drugs.”²⁴

“Many enjoy having a bad time – it is a choice. The bad feelings are my comfort zone. It is where I want to be all the time.”²⁵

Even though the information is recognised to be risky, the positive consequences may outweigh the negative. A Norwegian 17-year-old girl with experience of self-harm and suicidal ideation (NF02) explained that

¹⁸ Girl, 17, history of probable anxiety and depressive disorders (UKF02).

¹⁹ Girl, 17, autism spectrum disorder, sexual abuse, PTSD (UKF04).

²⁰ Girl, 17, eating disorder, self-harm, online sexual abuse, online self-harm content (NF07).

²¹ Girl, 14, dissociative identity disorder (UKF01).

²² Girl, 16, eating disorder, depression, self-harm, suicidal ideation, online pro-ana and self-harm content (NF04).

²³ Boy, 17, no disclosed mental health difficulties (UKM05).

²⁴ Girl, 17 history of probable binge-eating disorder and suicidal behaviours (UKF10).

²⁵ Girl, 16, eating disorder, depression, self-harm, suicidal ideation, online pro-ana and self-harm content (NF04).



“Sometimes I search for knowledge and information about suicide, self-harm and such topics, just to read. When I have suicide thoughts myself, this information feels comforting and make me feel safe. Actually, it is fun to read.”

By engaging with information related to suicide, she is able to acknowledge her difficult feelings:

“When I feel very lonely and I have a concrete suicide plan, but I have decided to wait for a while before I try it, because I am unsure if it is the best thing to do ... then I have these videos [with suicide content] ... then I allow myself to cry.”

In short, for this girl, locating online information relating to suicide was helpful, a way of calming herself and occupying herself when upset: *“It becomes what you do, you live in a bubble, it is your thing, your way out. When you cannot manage anything else, such as school, but you want to do something productive, then you read about it.”* But, as she ruefully reflects, *“it is difficult to end the activity, you become addicted, the pictures of the thin girls or the pictures of self-harming are a reminder of my goal.”* Such information even contributes to perpetuating her problems:

“You can read about symptoms, so that you can be aware of what kind of symptoms you should not show to your close family ... and to look at those pictures with self-harm content ... earlier I did not manage to harm myself, but by looking at the pictures, I have become used to blood and scars and such – so it has become easier to harm myself.”

Given that much of the information these young people seek relates to the lived experiences of others with similar mental health difficulties, information skills intersect heavily with communication skills and coping skills, as we explore next.

Communication and interaction skills – dealing with toxicity, ambiguity and finding support

Young people acquire technical digital skills as part of their broader concern to manage their social relations, as already noted, so communicative digital skills build on technical (and other) skills. A simple instance is how symbols used in digital messages can be used to communicate group identity or even sexual preferences, such as a pineapple equals a threesome. They can also be used self-protectively: *“Today, if I see ‘thinspo’, ‘lingo’ or ‘pro-ana’ in their bio, I never look into the account”*.²⁶ And further, symbols and code can be used discreetly to ask for support: *“There was a period where there was a trend – if you wrote 925 or 123 or what it was, it was like ‘123’ could mean ‘I want to be seen’ and ‘925’ could mean ‘help me’ ... and then people would say, ‘yes, you can talk to me’ in the comment section and send a message or something else.”*²⁷

Technical features of the platforms can allow the young people to interpret the actions of others. For example, a 17-year-old boy (UKM02), who has not disclosed his mental health condition, told us how he knows on Snapchat when someone is listening to him:

“You message someone, and you can tell that they read it, that they’ve read the message easier, because you can make like an avatar character, and the thing is, if you go on there, if you go to message someone, their avatar pops up, like a little in the corner of the screen, so you know that they’ve read the message. And then the avatar does, like, a thinking thing, like this, when he’s typing. So that’s cool, so you know someone is typing.”

What’s important to this boy is not that he has learned about the avatar, but that he knows its presence means *“that they’re reading, and they know that I’m in distress and I need to speak to*

²⁶ Young woman, 18, eating disorder, bullying, online pro-ana content (NF17).

²⁷ Girl, 16, eating disorder, depression, self-harm, suicidal ideation, online pro-ana and self-harm content (NF04).



someone, and they know, and you know yourself that they're listening." Equally, knowing by such technical-communicative skills that you are being ignored by peers online can be extremely hurtful, as he explains further:

"[If] you send a message and they haven't opened it, you'll know, because it says delivered. If you send a message and they've opened it and ignored it ... sometimes they don't want to interact and then that can lead to you not knowing who to go to and sort of, like, curl into a ball situation."

Young people emphasise how upsetting it can be to feel excluded or ignored on social media, not least because it can be so visible to their peers. They are sometimes advised to stop using or delete an app when their digital lives become problematic, but as they told us, this doesn't solve the problem because the drama will continue among their peers and social networks whether or not they participate, and this is especially challenging precisely because their participation or exclusion is so visible:

*"It's like, if you don't have the app you'll be left out or this feeling of not being involved in this community or this circle, I think is what keeps people from not deleting it when they want to."*²⁸

One young woman from Norway²⁹ deleted her social media apps every day because she found it frustrating when others didn't respond to her comments, invitations or 'like' her posts. Another from the UK said, with frustration, *"when people say that to me, I just learn not to respond. When they say it to me, just completely cut off. ... Put my phone down and then leave it."*³⁰

More common is the effort to blend technical and communication skills productively since, as one young woman explained, *"you need to know how to communicate in a right way"*:

*"It's not the same as face to face. You have to be more careful. So, if you just write 'OK' to someone, then you will be experienced as a bitch. You seem like you are in a bad mood if you just write 'OK'. But if you write 'OKI' it sounds nicer. There are a lot of weird things like that you need to know. And then there are emojis – if you put on a heart emoji – then you would seem nicer. There are a lot of things like that to think of. It is a skill to know these things."*³¹

Many young people find it demanding to interpret what is happening online and to participate on their own terms, not least because the situation itself can be hard to read, fast-paced and unpredictable:

*"I'd say it was 60/40 of positive versus negative because then you can anger yourself by reading other people's stories and some of it's very depressing. And I struggle a lot with anger about the justice system not working. So, when I hear things like that it angers me and can affect my mental health."*³²

While this 17-year-old girl tries to take matters lightly, an 18-year-old young man – who also suffers from anxiety – is tempted to escalate rather than avoid communication problems:

²⁸ Girl, 17, probable depressive disorder, panic episodes and possible self-harm, following a period of bullying (UKF16).

²⁹ Young woman, 18, eating disorder, bullying, online pro-ana content (NF17).

³⁰ Girl, 17, self-harm, sexual abuse, probable anxiety and depressive disorders (UKF05).

³¹ Young woman, 19, online and offline sexual abuse and unwanted sharing of nude pictures (NF27).

³² Girl, 17, autism spectrum disorder, sexual abuse, PTSD(UKF04).



“I post something, you post something, me and you start talking backwards, start talking absolute rubbish to each other, we’re having beef now. The term ‘beef’ is what young people use, it’s a technical term, meaning fight, argue. ... One can get into beef for no reason whatsoever because of social media. Now when you’re your own person, you’re going through beef, someone is swearing at you on Snapchat. ... You get afraid, you get scared, you get anxiety starts going through the roof, what do I do know, how am I going to deal with it? This guy is swearing at me, I hate my life. Then you start going through low mood swings.”³³

In many respects, communicative exchanges such as these resemble what danah boyd (2011) called ‘drama’. But for some young people, perhaps especially those with mental health difficulties, such drama or beef can expose them to serious risks. This young man goes on to tell us that:

“I started chilling with the boys, I used to chill with horrible people, drug dealers, I used to mess about, I used to get involved and when you’re a kid, you’re in that hype, that’s sick man, you know Snapchat people are selling. Snapchat is also a form of not exploitation, but also a source to sell drugs. ... Recruit kids into gangs, also scams.”

A boy aged 15 who is a mental health service user with attention-deficit hyperactivity disorder (ADHD), Tourette’s syndrome and anxiety disorder (UKM12), details what he has learned about the risks and the communicative skills required to manage them:

“There are trolls, there are griefers and there are hackers. Trolls are basically, they can pretend to be someone, pretend to give you something, trolls. But the definition’s in the name. Hackers, they will grab hacks and maybe they’ll have macros so they can aim through walls and kill you in a second as soon as you spawn, you’re dead. ... And those are extremely frustrating only if you let them frustrate you. Because, to put a lot of effort into a game where you’re then relying on that as a main source of positivity, so let’s say if it’s the only thing going well in your life and a griefer comes along and destroys that, then that’s bad. But if you keep it to a level where it’s consistently at a level where it’s not going to really affect you if it goes or not, then it doesn’t really matter.”

At the same time, they know that they don’t always manage to put their knowledge into action:

“Now that I’m on medication, I just, if I’m in a depressive episode, I take Clonazepam, I think it’s called, to get the anxiety away so that I don’t go into a manic. But when I am manic, I’m pretty sure I just send random shit to people.”³⁴

While we heard somewhat more from boys about online aggression, some girls also participated in such aggressive drama, often using their digital skills to escalate rather than avoid online problems:

“Because there is anonymity, I do tend to get into wars with, I don’t know, people that are racist or have really strong views. So, I’ll have a private account, but I’ll reply to them publicly and I don’t know, either call them a name or reply to something that they say that’s not exactly nice.”³⁵

³³ Young man, 18, probable anxiety disorder (UKM06).

³⁴ Boy, 17, bipolar disorder (UKM08).

³⁵ Girl, 17, history of probable binge-eating disorder and suicidal behaviours (UKF10).



A 16-year-old girl is conflicted – she wants to engage in online controversy but, despite currently being supported by a specialist trauma service, she struggles with the emotional burden of such hostile engagements:

“[W]hen I enjoy seeing controversial stuff, debates, politics stuff, and then seeing these people say stuff like that, and then having to sit there and I can’t look away from it, so I just sit there getting mad at all of it.”³⁶

We heard rather more from girls than boys about “*the pressure to be perfect*”, as a 17-year-old girl, who “*had really bad mental health when I was age 11*”, explained:

“On social media your account should look a certain way, you should be posting X amount of times a day, you should post pictures of yourself and they should look a certain way. ... I don’t post any photos, but when I do, maybe, once a year, I feel like I’m going to throw my phone across the room going, I’m scared that I’ve just posted something on Instagram.”³⁷

This fear of mismanaging online communication opens a gap between what young people can do (post, engage, comment) and what they actually do (be cautious, don’t post, feel anxious). Others deploy digital skills to manage communication even more intensely:

“I have different Instagram profiles according to how I use them. ... I have my ordinary profile, which is the one for family and friends from school and football, people I know and have contact with. And then I have a private Instagram profile, it is half private, because it is for my really, really close friends. And then, I have a private-private profile, an anonymous profile, which I use for the people I have never met, and which my friends do not know about. ... I use my own name on the profile for my friends. But for the anonymous profile, I have different usernames and the profile picture is not me so that no one can connect the profile to me.”³⁸

This girl emphasised how the different accounts made her feel safe and more honest when communicating her personal thoughts and content online: “*I think I am more honest online. ... Many of my contacts do not know who I am. In this way, none of my friends can find out and it makes me feel safe. The content stays online, if you understand.*”

Indeed, online communication can offer genuine value for those whose everyday lives are already difficult, so having the right digital skills is important:

“If you have nowhere to turn to, if in your offline life you’re by yourself, you have no one to talk to, there’s no one there for you. You can always go online and find somebody who will at least be generous enough to talk to you and to encourage you.”³⁹

A 17-year-old girl with experience of online sexual abuse, eating disorder and self-harm told us how important it was to find a supportive group at a difficult time in her early adolescence:

“At the time, I had a really bad time. So, I remember I felt it was nice because I was lonely and had few real contacts. I found people online to talk with. I was curious about who they were. It was a whole new world and I thought it was so exciting.”⁴⁰

³⁶ Girl, 16, sexual abuse, PTSD (UKF09).

³⁷ Girl, 17, history of probable anxiety and depressive disorders (UKF02).

³⁸ Girl, 17, eating disorder, self-harm, online sexual abuse, online self-harm content (NF07).

³⁹ Boy, 15, ADHD and Tourette’s syndrome, anxiety disorder (UKM12).



Another told us how her communicative skills helped her find friends online when she lacked them offline:

“If you do not have so many like-minded people at school or you have been socially excluded ... then it is so nice to have many online friends. One of my best friends, who I have known for seven years, I met on Instagram because we liked the same band and YouTubers and then we became friends.”⁴¹

Again, this discussion takes us into the territory of coping and social compensation (see Peter et al., 2005, and Section 6.4). So here we simply note that communication skills are a vital means to such an end, and much appreciated as such by these young people.

Content creation and production skills

“I just make creative videos and self-care videos. It would be like, ah, so I can make a video of me dancing and smiling, all happy, and then you can add text. I’ll put, like, have you brushed your teeth? I have done your self-care things today? And just little positive videos really.”⁴²

“Instagram ... it’s now lately that I have started to think that maybe I should post pictures that are a little more professional.”⁴³

Creation and production skills were a prominent aspect of self-expression and active digital participation, seen by many as a mandatory precursor, especially for ‘professionalised’ internet use. Such skills covered the functional aspects of creating your own content as well as more critical aspects of knowing how to engage audiences, promote content, optimise and recognise trending or critically reflect on the commercialised aspects of content production.

Some of the young people we interviewed in the UK were recruited through a mental health apprenticeship scheme that offered opportunities for advocacy, and they saw gaining digital skills useful in this regard:

“I do advocate positive mental health, and ... [during the pandemic] I looked at the misconceptions of COVID and how COVID affected young people’s mental health ... and that did help with me articulating myself, especially on social media, because you’ve got to speak the language of young people.”⁴⁴

“When I make a video, I want it to be perfect. I can’t watch it if it looks like, ooh, my hair’s like this. So, you might have to redo it. And, if you want to edit it, and add [unclear], it takes however long you want to put into it, really. Because you can post it whenever. But I think, if you’re going to post a video, especially for mental health awareness, you want it to look good, and stuff like that.”⁴⁵

A 15-year-old girl told a story of her friend getting professional dance lessons to create great TikTok content but gaining only a handful of followers: *“you put so much in, and if you do get nothing out of it that really can affect your mental health. Because it’s almost like what you put in you want to get out of it, but sometimes that isn’t obviously the case and people don’t really*

⁴⁰ Girl, 17, eating disorder, self-harm, online sexual abuse, online self-harm content (NF07).

⁴¹ Girl, 19, depression, self-harm, suicide ideation, online self-harm content (NF08).

⁴² Young woman, 18, probable anxiety disorder, suicidal thoughts (UKF14).

⁴³ Girl, 17, anxiety, depression, PTSD, online and offline sexual abuse (NF23).

⁴⁴ Young man, 18, no disclosed mental health disorder (UKM01).

⁴⁵ Young woman, 18, probable anxiety disorder, suicidal thoughts (UKF14).



recognise it just because of algorithms and all of that.”⁴⁶ The implication is that however skilled and determined she is, the system design undermines what she hopes to achieve in a damaging way.

A sexual abuse survivor tells a story that interweaves the skills of participating in an online group, advocating online for LGBTQ people and managing a monetised relationship with the TikTok platform:

“I was in this LGBTQ group. And we had this TikTok account which had quite a lot of followers. And it was helping LGBTQ people come out, helping them with their issues and stuff. And obviously, we had a group chat talk, and it all fell apart because of a relationship with one, with two of the people in the group. And those two people, that ruined the whole community and the whole group chat. And then even the TikTok account, so that account got taken down.”⁴⁷

In the main, we heard relatively little about creation and production skills. This may be because we did not make a point of asking the young people about these, but it may also be because, as noted in the research literature, young people are much more likely to scroll and view online content, or communicate with their friends, than they are to create new content (Livingstone et al., 2019).

Conclusions on the digital skills of young people with mental health difficulties

Young people’s digital lives are inherently social, and their social lives are heavily digital. In consequence, they learn to engage with digital and social experiences simultaneously, and it is hard for them – and for us, as observing researchers – to pull apart the digital and social skills involved. In analysing the interviews, we found support for the four dimensions prioritised in the ySKILLS model, showing how they play a particular role in helping young people with mental health difficulties navigate their digital lives, with variable success. These arise in response to the close interdependence of digital design, platform business models and everyday social interaction among young people and others. These are not unique to young people with mental health difficulties but are intensely felt by and of considerable concern to them, and our research has offered insights into how these digital skills are used, separately and together, and why they matter to these young people’s lived experience. Relatedly, we have also illustrated how the functional and critical aspects of digital skills (see Figure 4; see also Helsper et al., 2021) can be interconnected, as the very deployment of these skills leads to consequences that prompt the young people to reflect on their digital engagement and, at times, resolve to act differently in future.

Importantly, the young people argued, implicitly and explicitly, for expanded and complex definitions of digital skills that are inseparable from personal, emotional and interpersonal skills. Their efforts go well beyond the purely functional and technical aspects, and also require a more critical and complex understanding of the possible negative effects, self-awareness of the outcomes for their own mental health and wellbeing, as well as self-care and self-control to be able to first understand and then remove themselves from a toxic or stressful situation. Indeed, managing technology is, for them, also a way of managing their lives, trying to optimise their wellbeing, and reflecting on their motivations and identities as well as on the values and concerns of the wider world. We note that, while some policy approaches to digital skills are narrowly defined (Livingstone et al., 2021), many researchers and educators have sought to precisely

⁴⁶ Girl, 15, probable anxiety disorder (UKF17).

⁴⁷ Girl, 17, self-harm, sexual abuse, probable anxiety and depressive disorders (UKF05).



include these wider understandings of digital skills, including as advocated by young people themselves, in both theory and practice (Erstad, 2018; Staksrud, 2017; Stoilova et al., 2020).

For example, the often ambiguous and ambivalent nature of online communication, whether toxic or supportive or something unstable in between – is a major theme when young people discuss their communication skills. We heard that, despite their occasional efforts at digital ‘detoxing’ and their skilled use of blocking, muting or other privacy tactics, engaging actively with online communication is an essential part of their lives. More than whether to communicate online, therefore, the question for young people is *how* to do it. Learning which app to use for which kind of communication was often mentioned, with the young people explaining how they would switch from a more public app to Snapchat or even texting when they wished to be more private or gain peer support.

There were varying levels of skill among the participants, with younger participants being, as a whole, less competent than the older ones, gradually developing digital skills over time. Yet overall, the young people we spoke to were fairly highly skilled with sophisticated knowledge of the digital ecology and with developed proactive strategies to appropriate the affordances in ways that work for them. They were certainly not unskilled young people who have ended up with mental health difficulties because of their incompetent technology use or inability to dodge online risks. Quite the opposite – the young people we spoke to offered rather competent and reflexive accounts of both the positive and negative aspects of their digital engagement and shared many justified frustrations and criticisms of how the online environment had failed to live up to their needs and expectations. In many ways, they were not dissimilar in the way that they engaged online and the skills they possessed to their peers who did not experience mental health difficulties.

Yet, their mental health difficulties often played a role in how they used the internet and the outcomes they experienced. Most notably, we draw attention here to the importance of having the repertoire of digital skills to manage their digital life in the knowledge of their own emotions, vulnerabilities and history of problems. This adds intensity to their experiences, a hypervigilance to their digital engagement, and an urgency to their acquisition of needed skills and the competence to deploy them in combination – for self-protection, to cope – often as part of a biographical narrative of self-growth. Having drawn attention to the array of technical and operational skills that the young people have gained, it is also clear that such skills require close attention to and manipulation of the specific affordances of different platforms, in order that they can create the circumstances in which to express themselves and engage with others. We explore this next.

6.2. Engaging with the risky-by-design affordances of the digital environment

Why does the digital environment require particular skills to understand and use it? In this section, we explore how the digital environment presents an ever changing, often difficult and sometimes problematic set of challenges for young people with mental health difficulties. These challenges arise because of digital design, platform policies and the ways that both shape the activities of young people and others they might interact with. For example, the digital environment is complex and opaque, and it adapts to its different users in different ways, recommending to them certain kinds of content or opening personalised pathways to risk that are not apparent to others. It also sustains new cultural practices that can be difficult to decipher – consider, for example, the difficulty of determining the trustworthiness of influencers (Livingstone & Rahali, 2022). These challenges test young people’s digital skills, and at times their skills are insufficient to the task, resulting in unhappy or harmful experiences.



Thinking about the digital environment in this ecological sense, as a designed infrastructure that anticipates and responds to users' actions, helps us understand how the same apps that many people use (e.g., Twitter, YouTube, Spotify) afford very different possibilities for young people with mental health difficulties in ways that may be unimaginable to their parents, caregivers, teachers or therapists. These affordances intersect with the digital skills and literacies of their users. For example, just as crossing the road safely depends both on the 'road literacy' of a child and on the design of the highway and speed of the cars, so, too, young people's experiences of the digital environment depend on their digital skills, the design of the platforms and the actions of other people. To understand this, we draw on the critical scholarship of digital cultures, especially its concept of affordance, which refers to how the material and symbolic features of the digital environment enable, impede or even promote particular activities and meanings for their users (Davis & Chouinard, 2016; Nesi et al., 2022).

In the interviews, the young people were keen to tell us about many particular design features and the opportunities or risk they afford them. One example is the hashtag: *"hashtags can be positive and negative, but Twitter is more about debate, and it's more about opinions, hence why the hashtags are more acceptable, if that makes sense. And they're used in a better way compared to TikTok"*.⁴⁸ Young people develop their digital skills to interpret hashtags according to particular social norms, so as to engage online appropriately. We can discern from this 17-year-old girl (UKF02) that she is dismayed by the hateful interactions she encounters on TikTok, preferring debate on Twitter. By contrast, a 14-year-old boy (UKM03) feels unable to engage with Twitter, describing it as *"a horrible app. No one really likes being on Twitter. ... Everyone always wants a fight on Twitter."*

While the reasons for such variable responses are many and varied, our intention in this section is to draw attention to the design features of the digital environment that young people with mental health difficulties encounter. For a 17-year-old girl (UKF10) with a history of binge-eating disorder and suicidal behaviours, TikTok affords problematic possibilities that she and others have become skilled at decoding: *"if you put a hashtag, maybe binge eating, you get videos that are teaching you how to become anorexic."* Any one feature is linked to others. As she continues,

"[S]o that they don't get taken down, the video itself, what they do is they say look in the comments for this. So, it's just music playing in the background, an empty screen and look at the comments. You open up the comments and the comments section is full of these random people giving you eating disorder tips. ... And it's like sharing stuff in secret or hidden ways that I've realised, yes, people are really good at finding stuff like that."

The digital environment affords a changing, arguably increasingly extreme experience, because it is only lightly and unevenly regulated, and because the flow of content is increasingly automated by the operation of algorithms and dark patterns that present content to users in ways that respond to their prior actions, may differ from the content shown to other people, and are driven by the commercial interests of the attention economy (Stoilova et al., 2021a). As a 16-year-old girl put it, *"once you interact with different things it just kind of tailors to what they think you like, so I think it just becomes more addicting in a way"*.⁴⁹ This in and of itself requires the development of coping skills, as illustrated by a 17-year-old girl with experience of an eating disorder, self-harm and online sexual abuse (NF07), who tells us how,

"When I am out for a walk, for example, I think: 'Okay, I can manage to walk for 15 minutes without checking my mobile'. But I notice an impulse to check my phone without

⁴⁸ Girl, 17, history of probable anxiety and depressive disorders (UKF02).

⁴⁹ Girl, 16, sexual abuse, PTSD (UKF09).



thinking of it. So, I think like this: 'No, I have used so much time on my phone today!' So, I try to regulate."

In these interviews, young people reflect on how their needs intersect with the affordances of the digital environment in ways that could escalate problematically – for example, caring about being liked may be ‘normal’ and, for a struggling teenager, can feel overwhelming, but in a digital environment designed to amplify ‘likes’ and channel emotions for profit, young people’s needs can seem to fuel problematic experiences, including excessive use: *“It’s not that it [TikTok] was not fun, it was consuming a lot of my time and I really disliked it. I deleted it before, but I ended up getting it again because I got an addiction to it in a way.”*⁵⁰

We explore the importance of coping skills – including limiting engagement or deleting apps – later (Section 6.4). Here we observe the challenge posed to young people’s wellbeing by digital designs. These may not only facilitate the risk of excessive internet use, but they also promote extreme content; hence they have been dubbed ‘risky-by-design’ (5Rights, 2021). Yet, although research is growing on user response to personalised algorithms (Bucher, 2020), extreme content (Smahel et al., 2020) and dark (deceptive) patterns of system design (Federal Trade Commission, 2022; Norwegian Consumer Council, 2018), little research has examined their implications for vulnerable users and their digital skills. As we discuss, there are several ways in which young people with mental health difficulties have learned to pay close attention to digital affordances, acknowledging that this in itself is a skill: *“It’s not the same as face to face. You have to be more careful. There are a lot of weird things you need to know. It is a skill to know these things”*.⁵¹ We highlight their responses to types of risk affordances: algorithmically amplified triggers for vulnerability, uncertain trustworthiness, trending or viral content and extreme content. And we draw attention to how, despite their considerable efforts, the power of platforms is often greater than the capacity of even skilled young people to manage:

*“First, I try to avoid it [risky content]. Then, I use more time on other topics and there will be more of this and less of the other ... I just realised that I could not continue the way I used to. All of my ‘for you’ page was filled with that sort of thing.”*⁵²

Algorithmically amplified triggers for vulnerability

*“When you get triggered it’s, say you have mental health issues and then you see someone hurting themselves, it’s like a trigger and it makes you feel like you want to do it, if that makes sense. So, it’s really pushing you to the idea of it.”*⁵³

Young people with mental health difficulties use the idea of ‘triggering’ to refer to how the digital environment poses them with specific challenges. Identifying and avoiding or coping with the triggers that upset them or set off their mental health difficulties requires both self-awareness and digital literacy. Yet young people’s preoccupation with these triggers reflects how difficult it can be to succeed in managing them. Two 18-year-old young women explain further how the triggering content interacts with specific mental health vulnerabilities for some young people:

“The common phrase that people use nowadays is go kill yourself, and then that’s quite triggering because obviously previously attempting it, and you want to get back out of that headspace and then they go say that. It’s everyone that just doesn’t like you or

⁵⁰ Boy, 16, no disclosed mental health disorder, possible bullying (UKM07).

⁵¹ Young woman, 19, online and offline sexual abuse and unwanted sharing of nude pictures (NF27).

⁵² Young woman, 18, depression, self-harm, suicide ideation, online self-harm content (NF11).

⁵³ Young woman, 18, self-harm, probable anxiety and depressive disorders (UKF06).



bullies you or whatever, had nothing else what to say, then them three words and it's like, taking them, going back to the place you was."⁵⁴

*"You need to be conscious of what content makes you better or worse. ... I have figured out how I can avoid seeing ... or see more of what I want to see and that I know will make me feel better. And if I use time to see this content, I will get more of this kind of content."*⁵⁵

Young people may know about but cannot always deal with the risks they encounter. This is partly because, as found with PTSD, each person has their own triggers, and these can be subtle or unexpected. For instance, a 14-year-old boy's close friend had died recently, and now a video game reminded him of his loss – *"whenever I load up the game it goes up to the friend's menu and it shows me he was last on 20 days ago."*⁵⁶ The point is that such content would be unlikely to upset anyone else, yet, to this vulnerable boy, it can be traumatic. Possibly reflecting her own experience, a 17-year-old girl explains how particular content interacts with particular vulnerabilities: *"It can be something so small, like, if someone says you can't keep your legs closed, you're such a slag. That person might have been raped or sexually assaulted, and that can take that person back to that and then they'll feel guilty and sad again."*⁵⁷ She adds, *"this is what people say to people without even knowing who they are"*, making it hard for a speaker to anticipate the consequences of what they say.

Recognising your own triggers and how they arise is a kind of digital skill that combines self-knowledge with an understanding of the digital ecology. As UK focus group 01 recognised, this encompasses knowledge of the huge scale of platform operation, where *"not everything can be policed and not every video can get a trigger warning"* – as well as of the nature of adolescence – if their *"prefrontal cortex ... hasn't developed, so how are they meant to know wrong from right?"* Some content, however, clearly crosses a line, being unnecessary or inappropriate for most, and positively dangerous for some: *"You see on TikTok that there is people who have fresh cuts and they're taking videos with their fresh self-harm. ... That is triggering that young people don't need to see at all."*⁵⁸ This girl recognises the possible benefit of showing such images to de-stigmatisate self-harm but considers the risk to vulnerable others too great; hence she calls for a ban on such content.

Several young people described becoming aware of how social media algorithms promote problematic content: *"notice what is bad content for you and keep on scrolling"*, advises an 18-year-old girl struggling with an eating disorder (NF17). A 17-year-old girl favoured using the tools provided by platforms to game the algorithm: *"I know on Twitter you can mute words and stuff like that. ... That way you're actively helping yourself and your online world will get all positive."*⁵⁹ But such advice is difficult to put into practice – it is *"like putting an alcoholic in a liquor store and expecting them not to buy anything"*.⁶⁰ In part, this is because the platforms outwit their users, making it hard to decipher how the algorithms figure out your personal triggers– *"I definitely think it would be helpful to know what the algorithms pick up in a sense*

⁵⁴ Young woman, 18, self-harm, probable anxiety and depressive disorders (UKF06).

⁵⁵ Young woman, 18, depression, self-harm, suicide ideation, online self-harm content (NF11).

⁵⁶ Boy, 14, adjustment disorder (UKM11).

⁵⁷ Girl, 17, self-harm, sexual abuse, probable anxiety and depressive disorders (UKF05).

⁵⁸ Girl, 17, self-harm, sexual abuse, probable anxiety and depressive disorders (UKF05).

⁵⁹ Girl, 17, probable depressive disorder, panic episodes and possible self-harm, following a period of bullying (UKF16).

⁶⁰ Girl, 16, PTSD, self-harm, online sexual abuse, online self-harm content (NF12).



because sometimes it's more like shared interests. ... But I don't think anyone necessarily knows how it works."⁶¹

In the case of a 14-year-old girl, the algorithms picked up her interest in baking when she was 12 years old and started recommending dieting and fitness content, which gradually became more extreme, and she developed an obsession with counting calories:

*"I'm like 12, thinking about it. I eat three meals, and then these people are having a strawberry for brunch, and that was a big thing. I don't know why, maybe due to my age, but I was like, maybe I'm doing something wrong. And then I was focusing more on food and calorie counting. I didn't even know what MyFitnessPal is, that calorie tracking app. I found out from TikTok, and I thought, that's great, I can track how well I'm doing. And then if I do good, that's a good thing. I'm like these people I'm seeing on my feed."*⁶²

She had noticed the change but was not sure why it had happened, and it took her a long time to realise the effect the extreme diets being recommended to her had had on her own relationship with food.

Even if young people do understand what they are shown, they can suddenly find themselves facing triggering content that is difficult to cope with, leading them to feel out of control. Talking about TikTok's 'For You' page, a 16-year-old girl with anxiety (UKF19) was one of many who told us that *"There are chances it's going to put videos that are not your taste and stuff so you can't really control it, so then these videos are just going to keep popping up."* Another adds, *"it's like a vicious circle that you can't get out of. Once you're in it, you're in it, you can't get back out of it."*⁶³ What is concerning is that some blame themselves and their supposed deficiencies rather than blaming the platforms. Complaining that *"TikTok's the most addictive app ever"*, a 14-year-old boy concluded that *"You're always going to see stuff that you don't like ... and then you just keep looking at it, you're doing it to yourself. It's your own fault really."*⁶⁴ A Norwegian girl explains, further, that

*"It depends on your mental state. If I am at a good place, then I don't think of it. But if I am not in a good place, it can be a trigger. If I get triggered, then I try to do something else; play games, look at a video on YouTube. Other times I keep digging a hole – I look at more and more things and get more in the dumps."*⁶⁵

Not only can it be difficult to anticipate such triggering content, but the activities of others can also seem to normalise viewing extreme or 'toxic' content, adding peer pressure to accept rather than avoid challenging content. As experienced by a 19-year-old young woman with a history of self-harm (NF08):

"It could be hash-tagged with a band I like. And then there are hundreds of other hashtags, and coincidentally one of them is suicidal and self-harm and depression and then suddenly. ... It was very scary at first. But I got used to it surprisingly quickly. Because ... I saw no one else commented on it, right?"

⁶¹ Girl, 15, probable anxiety disorder (UKF17).

⁶² Girl, 14, history of a subclinical eating disorder and depressed mood (UKF15).

⁶³ Young woman, 18, self-harm, probable anxiety and depressive disorders (UKF06).

⁶⁴ Boy, 14, excessive user/gamer (UKM03).

⁶⁵ Young woman, 19, online sexual abuse, unwanted sharing of pictures (NF22).



Reading the social norms wrongly is itself hazardous: “I’ve seen a multitude of people getting cancelled and whatever”, explained one girl.⁶⁶ No wonder that, even when young people have the critical literacy to understand the business models driving the content they see (Bucher, 2018), it remains difficult for them to escape their effects:

“So, they listen in, they look at your messages, go, okay that’s what you talk about, that’s what you must like. So, then they’ll show you stuff related to that and that’ll obviously get you to watch more of their stuff which makes them more money.”⁶⁷

Opacity creates uncertainty over who to trust

In a challenging technological environment, what sources or people do you trust? In complex digital contexts, trust decisions can be hard to make, as research has shown (Stoilova et al., 2020). However, such decisions can be particularly risky, and the consequences of getting them wrong are considerable for those in need of mental health support. Consider the case of a young woman who had been groomed online and sexually abused in her early teens. She was intensely interested in how to identify signs of potential groomers:

“On Snapchat you have a bitmoji. It is a picture of yourself in animation, so it looks like you in animation. Or you make other figures. If a person doesn’t have one, you wonder: have they just made this account – and then you can look at their Snap score. It is a score that shows how long they have been on Snap and how many times he has snapped with people. So, I have a Snap score of about 2,000,000 because I have had Snap many years. If I see one who has 23,000 then I understand he hasn’t had Snap a long time and he could be either a new user or maybe just deleted an old account and he’s an okay person or a girl even. But often these are the ones who don’t want to identify themselves. Then I can look at the name. Is it long, a real name like Eric or something. But if it’s not a name, then you start to wonder. Then I wouldn’t add them.”⁶⁸

She decided who to trust and add to her contacts very carefully, taking advantage of the technological features on the apps that indicated the context of why someone might want to contact her. This required quite advanced digital skills, for example distinguishing those who ‘searched’ for her by name (“I feel okay, they have sought me out ... it seems like they might want to get in touch with me. Maybe they want to tell me something”) from those for whom her profile was suggested to others as a ‘quick add’ by the software (since they don’t even know her name).

Trust relies on secure identification of others, yet this is generally lacking in the digital environment. While for some young people online identity play can be entertaining, as are the opportunities that anonymity affords in playful interaction, for those we interviewed, unmasking deceptive identities was a serious matter, and knowing who to trust becomes a valued digital skill. A 17-year-old girl who self-harms, having been groomed at the age of 10, leading to sexual abuse, anxiety and depression (UKF05), explains to us that “when you’re on Xbox, you don’t really see someone. You hear their voice, and you can almost always tell if someone is young because they’ve not hit puberty and you can hear it in their voice. And I guess that’s what those people go for.” Developing her insights, she tells us how she has learned to discern the signs of grooming – a distinct digital skill of importance to her, given her history:

⁶⁶ Girl, 17, probable depressive disorder, panic episodes and possible self-harm, following a period of bullying (UKF16).

⁶⁷ Boy, 14, excessive user/gamer (UKM03).

⁶⁸ Young woman, 19, online and offline sexual abuse and unwanted sharing of nude pictures (NF27).



“Signs to look out for is the person’s trying to isolate you from your friends, saying that they’re the only person that you need, that your friends are horrible, they’re trying to manipulate you. Basically, turning you against everyone that’s in your own personal bubble in your real life. And being quite manipulative towards your feelings and saying that you’re wrong in what you feel. And then, if you attack that and say, no, what I’m feeling is valid, then they say stuff like, quite manipulative and dark stuff, being like, I’m going to kill myself or just very manipulative things to keep those young people in their trap.”

In part, these are social skills that also apply in face-to-face situations. But in addition to interpreting user actions, she tells us how she tries to decode specific platform affordances:

“I think that with social media and finding out if someone is a fake person or a real person, what I look for is, if it’s an account that’s messaged me, when have they started the account. So, if they’ve started it recently, that’s a sign that it’s a fake account. If it’s got loads of followers on it where it’s just a load of bots, then you know it’s a fake account. ... If you ask them to send a photo of them now on video chat and they don’t, then that’s a huge sign that they are a catfish or someone not nice. ... And sometimes it don’t matter if you blocked them because they just make a new account.”

In addition to the challenge of identifying those likely to harm them, young people are also becoming sceptical of those who appear to offer help. UK focus group 02 discussed how social media algorithms can drive young people’s need for mental health support precisely by promoting the triggering content for which influencers can, then, proffer the solution: *“it’s a nasty cycle between seeing the recovery pages and seeing the triggering pages.”* In consequence, it can be difficult to trust what’s being said online by popular influencers apparently offering mental health support, not only because they are financially compensated by the platforms, but also because their very business model relies on the continued existence of triggering content. As one UK 17-year-old girl observed:

“Do you honestly think that most people on TikTok showcase things about mental health ... just for the sake of helping society out? ... Most of these people also have 500,000 followers on TikTok and most of these people have sponsorship brands with other companies ... to showcase this app which helps your mental health. They’re financially gaining from that. ... I feel like so many people are not genuine, they’re so fake, and people just don’t realise.”⁶⁹

Trending and ‘going viral’

Research on youth digital culture often celebrates young people’s participation in the creation of trends that share content online (boyd, 2011), although much has also been written about the social pressures that result (Nesi, 2022). These are illustrated by a 17-year-old girl with anxiety disorder who strives to maintain sufficient followers to get the benefit provided by the platform: *“I have got TikTok. I haven’t got that many followers. I’ve only got, like, 1,000 followers. If you get 1,000, you can go live. So, at least I’ve got 1,000 follows. Like, when I post my videos, I expect to go viral. I want these 15K ‘likes’.”⁷⁰* For young people with mental health difficulties, such pressures can exacerbate the effects of triggering content in challenging ways: *“Sometimes people might tweet something that’s quite triggering. ... I might open TikTok and there might be a*

⁶⁹ Girl, 17, no disclosed mental health disorder (UKF03).

⁷⁰ Girl, 17, probable anxiety disorder (UKF12).



random trending shitty video of something that's trending but in an unhealthy way."⁷¹ This can really add to the pressure they feel – portraying a negative world that peers normalise by joining in and that it feels difficult to escape from:

*"They start by making a trend. ... Somebody might, say, put a picture up of a time when you felt really emotional, or sad, or you was going through a breakdown or something ... and then when you watch this video people think, oh, this trend's on. I've got a picture when I felt emotional, and was going to break down, and when I felt like really, in a really dark place. And then that trend starts getting bigger and bigger, and more people start seeing this trend and then they start putting this trend out on more platforms."*⁷²

*"As long as you delete a new platform, a new one will appear. That's how it is. We had that Yodel that is like that. ... I call it the bullying app because people just write a lot of ugly things there, and a lot of such rumours and things like that on that app. ... People post and then comment. There is a lot on Facebook too ... but on Yodel then, you can be anonymous. So, I think it's a bit more about what you yourself want to be a part of. That you have to take some responsibility yourself, really. Because there will be new platforms. If you remove one, there will be a new one that is exactly the same. So, there are web trolls everywhere, and there always will be."*⁷³

Such accounts illustrate the potentially pernicious interaction of digital affordances (which make it easy to post content and share it at scale, often anonymously), platform business models (which rapidly innovate to sustain user attention), user practices and norms, and the vulnerabilities of young people with mental health difficulties. Even if a young person is the content creator, the pressure can be overwhelming, both to maintain their 'success' and also to deal with its consequences:

*"If you make good content it will continue to get on the 'For You' page, so you'll get on loads and loads of people's pages. And they'll like it and then they'll follow you. And usually these group accounts, they're the ones that skyrocket quite quickly because people are like. ... I want to be posting so I get loads of followers on my account. And it usually takes a couple of weeks, not even that. It depends on what kind of content you're talking about and if it's controversial or people agree with it or it's inspirational. But I don't think that those groups last long because there's always disagreements and fallouts."*⁷⁴

Indeed, in addition to the felt pressures to perform publicly, behind the scenes, the consequences can be terrifying. Reflecting on her efforts to defend people when they are attacked online, this 17-year-old girl told us how:

*"You get people reporting you. You get people attacking you. You get people in your DMs [direct messages] telling to kill yourself and it's really quite intense at times. Which is why people don't do it anymore: unless you think that your comment is going to get quite a view or likes, you're just not going to comment."*⁷⁵

This seems to be the new normal, as an 18-year-old explains:

⁷¹ Girl, 17, probable depressive disorder, panic episodes and possible self-harm, following a period of bullying (UKF16).

⁷² Boy, 17, no disclosed mental health disorder (UKM02).

⁷³ Young woman, 19, online and offline sexual abuse and unwanted sharing of nude pictures (NF27).

⁷⁴ Girl, 17, self-harm, sexual abuse, probable anxiety and depressive disorders (UKF05).

⁷⁵ Girl, 17, history of probable binge-eating disorder and suicidal behaviours (UKF10).



“My generation, they’ve not known anything different to social media ... there’s constantly new technology coming out, it would be weird if you weren’t on social media. ... So, if they’re feeling negative in themselves, or if they’re struggling with their mental health, or if they’re not in their right mind, then they might post something that’s horrible, and trolls and stuff like that.”⁷⁶

Yet the new normal of being always on, always visible, is generating another new normal – of being constantly wary, seeking to be constantly in control, precisely by manipulating the affordances of the social media platforms:

“I mostly have fake social accounts. ... I do not have apps on my mobile, because I become so, I feel uncomfortable when I have them. So, if I need to use them I download them, and then I delete them at once when I am done. ... Because before ... it was like I disappeared into it [my phone], just to look at different stuff and things. And then, for example, if I sent messages to friends, then I became so stressed out when they did not answer, and there was no [message] alerts and stuff. So, then I turned off the alerts first, and then I started to delete the apps so I did not have to think about it.”⁷⁷

These young women share a range of skills they operate – blocking others from sharing their TikTok videos, putting the phone on ‘do not disturb’, not tagging friends in a comment *“because it’s so public,”⁷⁸* etc. – but these are responses to the specific ways in which technology uses upset them.

In short, trending and going viral is something the young people talk a lot about. They are fascinated by how content is drawn to their attention by the platform (‘what’s trending’) and how content posted by them or their peers can quickly get widely spread (‘going viral’, like a virus). They try to grasp how content is shared and spread, often unexpectedly and rapidly, and often beyond their control. If that content is hateful, abusive or scary, it means they suddenly see something horrible. But at the same time, it’s a way they can gain popularity and status if their own content goes viral. And it’s how they know what’s new, what’s the latest, and what they must keep up with if they are to be in the know. It’s certainly stressful, and it’s one reason they keep checking their phones.

The report includes young people talking openly and honestly about mental health difficulties and trauma (self-harm, sexual abuse, eating disorders, traumatic incidents, bereavement, bullying). Some readers might find these accounts distressing.

Encounters with extreme content

Population-based survey research suggests that vulnerable young people are more often exposed to extreme content than other young people (El-Asam et al., 2022; Stoilova et al., 2021b). In our interviews, the young people with mental health difficulties reported encounters with some content and conduct that is more extreme than most people, especially older adults, may see during their everyday digital lives. Some are fairly commonplace among young people if they are still concerned for the way they normalise particular practices (unsolicited ‘dick pics’ or ‘glamorised’ representations of eating disorders, for instance) while some are rarer. A digitally skilled but troubled 17-year-old girl with a history of binge-eating disorder and suicidal behaviours told us of seeing images of a woman with her miscarried baby and ‘weird’

⁷⁶ Young woman, 18, probable anxiety disorder, suicidal thoughts (UKF14).

⁷⁷ Young woman, 18, eating disorder, bullying, online pro-ana content (NF17).

⁷⁸ Girl, 14, history of a subclinical eating disorder and depressed mood (UKF15).



pornographic fetishes such as “a man raping a hamster” or “a woman inserting a whole chair leg up her vagina”. Her digital skills in finding such content were undoubtedly intriguing:

“If you’re on TikTok, what you mostly do is you send them a link of a Twitter one. Because on Twitter you can literally watch anything you search up, something will come up. And then if you go onto the Twitter link, then if Twitter takes down the video, they’ll just send you a link of this app called Dropbox, which downloads any illegal video. And you can either just download it or they’ll DM it and you can access it.”⁷⁹

Such content makes a distinct impression and, because of digital affordances, is disproportionately spread. A 16-year-old girl (UKF09) explained, “Once you see it you can’t unsee it, that’s with you forever. And the more people interact with it the more popular it will get and the more it will show up on other people’s ‘For You’ page, so it just spreads quicker.” These encounters can occur in plain sight or in more hidden parts of the internet – where group interactions are anonymous or by invitation:

“My friends and I were bored one day long ago, and we went on Omegle. And there was this 12-year-old girl crying with a knife in her hand. It was so horrible! We were shocked. She sat there listening to depressing music crying with this knife. We tried to say, ‘this is not the solution, you’re such a great person’. And then she just skipped us. And we were like, what do we do now? Should we call someone? What if she kills herself and we were sort of witnesses?”⁸⁰

As in this example, the challenges posed by the digital environment are multiple, including the shocking experience, which in itself is often triggering to those with similar vulnerabilities, and also the sense of responsibility to act in a way that could help the situation. Another is that individual experiences are widely shared – seen by the people who matter to you – your friends, school, community – thereby spreading the shame and hurt:

“I knew so many people that their whole life and mental health, they didn’t come to school because everybody at school was talking about it. Everybody was screenshotting their pictures. And obviously, it’s a public account [sharing intimate images].”⁸¹

A concern among some is also whether social media platforms, especially TikTok, have become more extreme:

“In the last six months, [TikTok has] gone from being very, very positive, to being very, very toxic. And that’s because the way that influencers are influencing things like weight loss and diet pills and stuff like that ... they portray it as if it’s a good thing, but in reality, ... there’s 10-year-olds saying they’re fat.”⁸²

Although it was difficult to pursue in the interviews, the possible impact of extreme situations on these vulnerable young people raises serious questions for research and policy. It seems likely that the mental health difficulties experienced by these young people are not only grounded in their everyday personal lives, but also amplified through their digital engagement. Here, a 17-year-old girl with experience of online sexual abuse, eating disorders and self-harm reflects on the possible influence of emerging social norms in digital environments:

⁷⁹ Girl, 17, history of probable binge-eating disorder and suicidal behaviours (UKF10).

⁸⁰ Young woman, 19, online and offline sexual abuse and unwanted sharing of nude pictures (NF27).

⁸¹ Young woman, 18, probable anxiety disorder, suicidal thoughts (UKF14).

⁸² Young woman, 18, self-harm, probable anxiety and depressive disorders (UKF06).



“It was not planned, but my friend and I ended up drinking a lot of alcohol and taking a lot of Paracetamol [painkillers] together, so that we were brought in an ambulance to the hospital and hospitalised. ... When we talk about this today, both of us think this was really strange. But then one day she said that at this moment there were a lot of young people who ran away and had taken an overdose together and filmed it and published it on TikTok. She thought that was why we did it. At the time, I did not feel influenced by anyone’s posts. I thought we were original!”⁸³

A young woman with anxiety disorder and suicidal thoughts spoke at length about the nature of the extreme digital spaces, reflecting also on the responsibility of the platforms for young people’s wellbeing. For example, she told us how *“they were selling fireworks, weapons, drugs, literally anything that you can’t get your hands on, on Snapchat ... it was getting reported all the time. The police were involved. But it was an anonymous account. They couldn’t track the person that was doing it. It’s disgusting.”* She described an occasion when:

“There was this guy and it’s really, really horrible. But he commits suicide on live video, because you can go live video. And people were screen recording, so recording their screens. And people posted it all over TikTok. Literally really gruesome. It was on TikTok for ages, and I think it took like three, four hours for TikTok to actually take it down.”⁸⁴

Several features of the digital environment combine to make these experiences so horrible. One is ubiquity – you can’t escape social media: *“I think it is worse on social media. ... You don’t want to go home to the same abuse that you’re getting in school. You want to at least have one place where you feel like you’ve run away from it.”⁸⁵* Another is how extreme online events can reach the physical world in terrifying ways:

“There was a big incident where my assailant threatened to shoot the school. And all of the community Facebook groups were exploding with pictures of him, saying, be careful, he’s threatening to do this and that, and it really affected me. Because I was scared, and all of the communities were screaming about him. ... I was diagnosed with PTSD about three months after.”⁸⁶

Yet another is how apps that adults consider innocent can become threatening:

“Her friend stalked my Spotify and found that someone was following me on Spotify that was new. Like, it’s really, it’s honestly really gross how she’s gone through my Spotify followers. Like, that is the lowest of low, going through Spotify followers to find someone. And then that friend had followed my Spotify recently as well, because I never followed her, I followed her, but she never followed me back. So, then I’m pretty sure that’s how she found her, and then found her Instagram, then did all that.”⁸⁷

Throughout these conversations, the young people also told us their views on platform responsiveness and content moderation, noting, for instance, how long certain pieces of content stayed online or how they were taken down from one app and reposted on another. This, too, represents skilled knowledge, but again, their accounts were often of how content stayed online too long, or platforms were insufficiently responsive, or were unsubtle in failing to distinguish, for example, fresh cuts from healed self-harm scars. They were also reflective about a youth culture

⁸³ Girl, 17, eating disorder, self-harm, online sexual abuse, online self-harm content (NF07).

⁸⁴ Young woman, 18, probable anxiety disorder, suicidal thoughts (UKF14).

⁸⁵ Young woman, 19, bullying and depressive disorder (UKF13).

⁸⁶ Girl, 17, autism spectrum disorder, sexual abuse, PTSD (UKF04).

⁸⁷ Boy, 17, bipolar disorder (UKM08).



that seeks out extreme content, perhaps to inoculate themselves against the problems they know are ‘out there’:

“Maybe it’s because our generation’s getting nosier than ever. I feel like everyone has a need to see something for themselves. But also, because for some people I know of, I think it’s to test their limits. Because it’s gotten to the point where everyone’s making self-harm jokes or rape is joked about, or everyone knows everything.”⁸⁸

The overriding impression was that extreme content remains easy to find, often in unexpected places, and yet there is an ongoing tussle between the youthful culture of transgression and pain and the inadequate formulation and implementation of safety policies by platforms. The result is that for young people with mental health difficulties, extreme digital spaces are widely known and visited, yet problematic. For the platforms, it is therefore a problem that harmful content is easily posted and seemingly hard to remove.

Conclusions on risky-by-design affordances

Young people want to explore their identities and relationships, to join in and not miss out or be excluded from the activities of others, yet also to avoid getting hurt or overwhelmed, and to know how to find information or help as needed. In today’s attention economy (Goldhaber, 1997), these needs, preoccupations and desires are all harnessed by platform business models to drive profitability by a threefold strategy of the commercial exploitation of personal data, algorithmically driven personalised marketing to users and generation of insights for future product development and innovation. As is increasingly apparent to regulators, commentators and the young people themselves, such profitability appears optimised by platform design that promotes ever more extreme, emotional, risky or hostile experiences (5Rights, 2021).

In this section we have explored how digital affordances interact with user skills and competencies as well as emerging use cultures (or subcultures). This allows us to account for the particular digital opportunities and risks experienced by one particular group of users, namely young people with mental health difficulties. It also provides vital context for the preceding analysis of these young people’s digital skills, accounting for the specificity of what and how they learn through digital engagement, as well as the barriers to skilful engagement that they face, this often undermining their wellbeing. As we have shown, users experience a different internet depending on who they are; risky material is sometimes thrown up at them, or they find themselves taken ‘down a rabbit hole’ by being shown ever more extreme material; or they stumble upon something extremely problematic without them looking for it. The very unpredictability of the digital environment is stressful, requiring a hypervigilant approach. It is also problematic that vulnerable young people are ‘fed’ digital content linked to their mental health difficulties – whether depicting self-harm or discussing weight reducing diets or depression.

Digital affordances are not a natural part of the digital environment, but rather, result from the value judgments and business decisions of the providers of digital products and services, translated into socio-technical design processes that are often deliberately risky and motivated by profit (Davis & Chouinard, 2016). Over a decade ago, boyd (2011) highlighted the key digital affordances of persistence, replicability, scalability and searchability. These, in turn, arise from intensely digital phenomena such as ‘unintended audiences’ and ‘context collapse’, often deriving from the anonymity and networked nature of the digital environment.

To engage with such a digital environment, users need skills to evaluate information, determine authenticity and manage the speed and scale of networked communication. These are still vital,

⁸⁸ Girl, 17, history of probable binge-eating disorder and suicidal behaviours (UKF10).



and some are now amplified, as we have seen with trending and viral content flows, as well as the complex decisions involved in determining trustworthy sources. But today, we can add further affordances that challenge young people, encompassing not only the centripetal processes that spread content, but also the centrifugal processes that centre content on the individual – data profiling, algorithmically managed feeds, recommendation systems, dark patterns of nudge and persuasion.

This section has suggested how risky-by-design complex and opaque technological systems overwhelm the young people: there's much that they cannot manage. They try but often also fail to develop some needed skills. This leads them to pay ever-closer attention to the specificities, peculiarities and business models of the platforms, and to the norms and use cultures that take root on these platforms. On the one hand, this generates digital skills concerned with identifying and dealing with algorithms, triggers, trending, dark patterns and extreme spaces. Yet even if they do learn the needed digital skills, they may not manage to apply them in the moment, or even if they can do so, they may not be enough to substantially impact on their digital situation. For those with mental health difficulties, the consequences can be extreme.

6.3. How young people with mental health difficulties learn digital skills

Just as it makes a difference if you are learning to read English or Finnish or Arabic (because of differences in script, phonography, style etc.), it makes a difference if you are learning to express yourself with Instagram or Snapchat or TikTok. We have already shown that young people are highly attuned to the features of the different social media apps, and the opportunities or risks that these afford them. But how do they learn their digital skills? It seems likely that young people with mental health difficulties learn digital skills just as others do: from a host of formal and informal sources – school, family, friends, media sources, and so forth. In the interviews, we heard of young people following or ignoring parental advice on how to limit phone use or be safe online, of teachers trying to teach skills but often providing too little, too late, of friends advising and reassuring each other with more or less success. Often our participants found themselves learning on their own, drawing on their digital skills and online resources, or just by trial and error, including from situations when they encountered problems and harm and this, in and of itself, they felt to be burdensome but necessary for their wellbeing.

In this section, we discuss how young people with mental health difficulties reflect on their acquisition of digital skills. We discerned three main modes of learning that were important to them: learning through trial and error, from lived experience, and from encountering problems. It is noteworthy that the young people said little about learning digital skills through formal education at school. Rather, they described modes of informal learning grounded in their everyday lives. Each integrated dimensions of on- and offline experience in generating digital skills.

Learning through trial and error

The young people talked most about learning through trial and error, often also called 'learning by doing' (Tan & Kim, 2015). As one girl put it, "*I think you learn as you make mistakes*".⁸⁹ Young people generally relish learning about the digital world by reflecting on their own learning journey, but for those with mental health difficulties we found an added intensity: the reasons why they search for information online or wish to share experiences with others can be very personal, and when things go wrong (the 'errors'), they can suffer:

"I have learned to be more conscious. ... And to notice what kind of content that makes me feel better, or worse. And how I can avoid or find more content that I want to see or that I

⁸⁹ Girl, 17, autism spectrum disorder, sexual abuse, PTSD (UKF04).



know makes me feel better. You know, understand that if I spend a lot of time on this kind of content, then I will receive more of this content."⁹⁰

*"You grow up learning it. So, everyone I know's really grown up with playing games. And it's one of them things, you learn how to deal with it while growing up. There's not a time where you just stop and you need someone to teach you, here's how to do this and how to do that. You teach yourself from the moment you start playing".*⁹¹

As we can see, these young people try things out, pay attention to the outcomes, and learn for themselves what triggers or helps them, and how to search for supportive experiences. While trial-and-error learning is described in the literature as a way of exploring and stretching your experience, for these young people, the desire for self-protection is strong, at times resulting in a cautious approach.

*"As your knowledge about ... interacting with other people online develops, you do start to take precautions against anything that could affect you".*⁹²

*"I think more of how I use the internet, in a way, and I am more aware of how I use it. ... Conscious of what I do. I may make some bad choices online but, still, they are conscious bad choices, so I understand what I do"*⁹³

Trial-and-error learning is distinctively individual, self-determined. We asked a 17-year-old boy "What if somebody else told you this years ago?" His answer was clear:

*"I don't think I would've listened because it's a learning experience, how can I develop without making mistakes? I have to learn it myself because there's not always going to be that person to tell me not to do this and not to do that".*⁹⁴

A 16-year-old girl agreed with him:

*"I know I wouldn't have listened because you don't realise how bad something is until you see it for yourself ... you don't really sit there and think they may be right. You just do it anyway until it could reflect back on you in a bad way, and you've actually made the mistake."*⁹⁵

Indeed, it takes time, perhaps years, to learn from your experiences online:

*"I think I have become somewhat more aware of how sick things are normalised [online]. I didn't notice this earlier. And I do think you can get ideas from others, without recognising, and you don't think: 'Yes, this is what I shall do!' But you have got the information online."*⁹⁶

In reflecting on their trial-and-error learning of digital skills over time, young people draw not only on the immediate experience of engaging with particular digital affordances, but also on their longer term lived experience of mental health difficulties, as we explore next.

⁹⁰ Young woman, 18, depression, self-harm, suicidal ideation, online self-harm content (NF11).

⁹¹ Boy, 14, excessive user/gamer (UKM03).

⁹² Boy, 17, no disclosed mental health difficulties (UKM05).

⁹³ Girl, 17, eating disorder, self-harm, online sexual abuse, online self-harm content (NF07).

⁹⁴ Boy, 17, no disclosed mental health difficulties (UKM05).

⁹⁵ Girl, 16, sexual abuse, PTSD (UKF09).

⁹⁶ Girl, 17, eating disorder, self-harm, online sexual abuse, online self-harm content (NF07).



Learning from lived experience

In our interviews, the young people were keen to reflect on their growing understanding and competence over time, in response to their lived experiences and, as they saw it, their growing resilience. We should note that it is probable that those who had not become more resilient or were facing increasing difficulties unsupported were less likely to be included in our sample due to various reasons, including safeguarding. Nonetheless, the narrative of personal growth through using digital technologies is striking:

“I’m in the generation where I got the first phone in my hand at the age of eight or nine. When you are quite young, you learn quite a lot fast when you are young. The brain is better at learning things then. ... We were just born into this. You have to learn the technology to live really.”⁹⁷

“I think what I’ve learned is that the internet isn’t what it seems to be. And I think this is a positive, because when I was first using social media I thought, wow, everyone’s on it. ... I remember on Snapchat I’d Snapchat my date live ... and on Instagram everyone’s posting all these amazing, beautiful pictures, but realistically it’s all a façade ... and people don’t have these perfect princess or kingdom lives.”⁹⁸

Again, the narrative of personal growth mediated by technologies is common to young people (boyd, 2002), but for those with mental health difficulties, the gap between the digital ‘façade’ and personal experience can be very wide:

“It’s really hard on social media to learn what’s right, what’s wrong, what’s real, what’s fake. I’m not a pro, definitely not, but I’m sort of getting better, I think.”⁹⁹

“I have unfollowed some people on my account ... especially if they posted pictures that I compared myself with them easily, and I noticed that the pictures were too perfect and non-realistic. Then I noticed that I did not feel so good about myself.”¹⁰⁰

“I think I’ve learned that no matter what social media says, whatever the media says in the whole entire, not to believe everything that’s there. And look at the wider picture, because as a child you don’t really think about it ..., I would also tell myself that, no matter what, if I am struggling, not to go on social media and watch videos like that: actually speak to somebody.”¹⁰¹

Learning digital skills through lived experience often means that the young people take on personal responsibility for what happens to them. It becomes their individual task to manage the digital world in which they are growing up – no matter that others (both platforms and other actors) have often generated the problems in the first place:

“If someone has done something bad, if someone has treated you in a bad way, you shouldn’t hesitate blocking them. Because then you’re protecting yourself.”¹⁰²

“I spend too much time online, waste time, it’s an easy way out and brings distraction, but I lose control and only make it worse. ... I must choose not to look at it. Try to spend as

⁹⁷ Young woman, 19, online and offline sexual abuse and unwanted sharing of nude pictures (NF27).

⁹⁸ Young man, 18, no disclosed mental health disorder (UKM01).

⁹⁹ Girl, 14, history of a subclinical eating disorder and depressed mood (UKF15).

¹⁰⁰ Young woman, 18, depression, self-harm, suicidal ideation, online self-harm content (NF11).

¹⁰¹ Young woman, 18, self-harm, probable anxiety and depressive disorders (UKF06).

¹⁰² Young woman, 18, depression, anxiety, PTSD, cyberbullying, online sexual abuse (NF15).



little time as possible on social media. Be aware of your own use. Do not criticise yourself for sitting too long but then move on."¹⁰³

Given their struggles with eating disorders or excessive use or other internet-related mental health difficulties, these young people were motivated to learn a range of digital skills. Most common were their efforts to make their social media private or limit their online contacts to friends and create a private account to get control. Some maintained several social media accounts – one for friends and family, and other accounts for different groups and networks in their social life that their friends and families did not know about. In general, to block, to unfollow or not respond to people is underlined as something they have learned to use more often after a negative experience. Other valued strategies included learning the emojis and codes of extreme spaces (e.g., ‘thinspo’, short for ‘thinspiration’, a code for pro-anorexic content), following positive rather than negative people and content – *“Notice what is bad content for you and keep on scrolling”*¹⁰⁴ – and, most commonly, limit their exposure – *“Social media is a time thief”*.¹⁰⁵

This is not to imply that the young people are always successful in gaining control. Indeed, the interviews were scattered with remarks suggesting that, while in principle they were learning from experience, in practice their knowledge was hard to apply:

*“As soon as you have some free time, then it’s like, ‘oh’, relax, get some food, and then [you have to] pick up the smartphone, check, is there anything, start answering, fix me food at the same time [you are] on the smartphone.”*¹⁰⁶

Learning the hard way: encountering problems

The combination of learning through trial and error together with learning from lived experience means that young people often learn the hard way, through encountering problems online. While the learning is often positive, the means to gain it could be painful, and we heard many accounts of adverse learning experiences from the young people with mental health difficulties:

*“The amount of times I remember accepting someone, and they have sent me a nude photo. So many times. ... When I was a child. At that time, I thought that was hilarious. Do you know what I mean? Now, I think, you weirdo. Now I just accept people I want.”*¹⁰⁷

*“I have learned a lot on how ... everyone is not who you think. ... People are complex, and not all of them are kind even though they say they are. ... I have learned from the negative experiences but also from the positive experiences online.”*¹⁰⁸

*“I came to the realisation that it’s not very good to have friends that you don’t know in your life, that’s dangerous and it’s irresponsible.”*¹⁰⁹

*“Do not add people you do not know or who do not have some friends that you know.”*¹¹⁰

While these quotes are similar to those elsewhere in this report, we highlight them here to draw attention to the process of learning that hints at past adversity – in other words, young people

¹⁰³ Girl, 17, eating disorder, self-harm, suicidal ideation, online self-harm content (NF02).

¹⁰⁴ Young woman, 18, eating disorder, bullying, online pro-ana content (NF17).

¹⁰⁵ Girl, 17, depression, self-harm, online self-harm content (NF06).

¹⁰⁶ Young man, 19, anxiety, depression, online sexual abuse, cyberbullying (NM02).

¹⁰⁷ Girl, 17, probable anxiety disorder (UKF12).

¹⁰⁸ Girl, 19, depression, self-harm, suicide ideation, online self-harm content (NF08).

¹⁰⁹ Boy, 15, ADHD and Tourette’s syndrome, anxiety disorder (UKM12).

¹¹⁰ Girl, 16, eating disorder, depression, self-harm, suicidal ideation, online pro-ana and self-harm content (NF04).



facing anxiety, self-harm and other problems may learn the hard way when learning from experience. How many nudes did a 17-year-old girl (UKF12), dealing with anxiety disorder, receive before she learned to manage her contacts? What negative experiences did a 19-year-old young woman (NF08) go through, and did that compound her self-harming? While most know that meeting people online can be risky, what led a 15-year-old boy (UKM12), who has ADHD, to call his experiences ‘dangerous’ or a 16-year-old girl (NF04) to warn others to avoid online contacts with such urgency?

In some interviews, we had the chance to go deeper. An 18-year-old young woman suffering from anxiety disorder and suicidal thoughts, told us how she tried to master her “*really bad anxiety*” that led to her “*overthinking every single situation.*” Online, that leads to problems which, she knows, will never get fully resolved:

“I got to the point where if my phone beeped, or before I went to sleep, I would have to check my phone. Because I was, like, what if someone’s posting stuff about me? What if someone’s sent me a message? What if my mom’s trying to call me and something’s happened? Or, what if someone’s put a negative comment online about me? Or, what if someone’s spread some photos? ... It’s taken me a while, a long, long time to actually disconnect from that. It’s constant. And I feel like anyone that is going through abuse or bullying, like cyberbullying, or anything that concerns, then anything online, or people know your business, you’re always going to worry.”¹¹¹

A possible mediating factor is the all-important need for recognition and validation that drives many young people. Young people growing up in a digital age often describe the internet as a key opportunity for meeting this need. But for those with mental health difficulties, it can make them even more vulnerable, because to gain recognition and validation, you have to reveal your true self to others. And doing this in uncertain, untrustworthy or opaque digital contexts is even more risky than doing it in person (Peter et al., 2005). Several told us of their efforts not to want the validation that others can offer, and also, not to take offence when interactions turned sour. One described how learning to decode suspicious behaviour online – for instance, identifying when they were communicating with a ‘catfish’¹¹² – can be hard-won knowledge:

“I have a 6th sense now. If they are too intense – block them. If they ask, ‘what are you wearing?’, block them. ... If you ask a person ‘why are you asking these things?’ – they get mad and call you a whore! Or say that you are a ‘sissy’.”¹¹³

A 17-year-old girl with a history of anxiety and depressive disorder (UKF02) also worried about the difficulty of interpreting digital interactions correctly:

“It’s so difficult to distinguish sometimes if they’re saying it to be mean or if they’re saying it to be laughy, jokey, happy, and you’re just overthinking it. So, I think it’s just easy to just go with it and if they’re repeatedly saying something, then I take offence to it if it’s somebody I know.”

The significance of this commonplace difficulty is revealed when she puts her immediate digital experiences into biographical perspective:

“You’re getting yourself in a cycle of sadness, whereas I think the change came when I matured, and I grew up and decided now is the time to make the change because when am

¹¹¹ Young woman, 18, probable anxiety disorder, suicidal thoughts (UKF14).

¹¹² Someone who pretends on social media to be someone different, in order to trick or attract other people

¹¹³ Girl, 16, PTSD, self-harm, online sexual abuse, online self-harm content (NF12).



I going to break the cycle of negativity that I'm in? Going to college and associating myself with better people and, genuinely, becoming a happier person, I think that's how I broke the cycle and changed my social media."

Implicitly, and sometimes explicitly, it seems that these young people are not only telling us how they learn about the internet, but, more profoundly, they are also telling us how they learn about themselves.

Conclusions on learning new digital skills

In this section, we have shown that for young people with mental health difficulties it really matters that they learn about the digital world, figure out what they need to know, and pick themselves up when they encounter problems. The skills they need can be very niche, as we saw in Section 6.2 on risky affordances – anticipating triggers, gaming algorithms, deciding about trust, managing virality and recognising extreme content. This involves learning all the dimensions of skills addressed earlier – technical, informational, communicative and creative – as well as about the digital affordances that create uncertainty or create problems of trust or even threat when engaging with or sharing content.

However, young people often find themselves at the epicentre of online risks and drama, whether they are initiating, responding to or escalating problematic situations. To deal with this, learning through trial and error was discussed with some enthusiasm, as was learning from lived experience. While learning the hard way was far from enjoyable, arguably it provoked some of the deepest reflections from the young people, whether or not they managed it. These learning processes are dual-facing – young people are learning about the digital environment, and they are learning about themselves and other people. Although much of their talk was about how they learned to wise up about the digital world, becoming more ‘mature’ or self-protective, and figuring out how to protect themselves from the excesses and potential harms of digital engagement, this does not mean they found it easy to take control over their online use in daily life. Both digital affordances such as the operation of algorithms, and the problematic norms and uncertain contexts that shape social interaction online, were mentioned as barriers to learning or, more often, as a barrier to putting the knowledge they had gained into practice effectively.

We also got the impression that this process of learning digital skills generates a sense of personal accomplishment as they find ways to manage their online lives and perceive themselves as becoming stronger, fortified against what might come. Given that many of the young people we interviewed had been in contact with mental health services, it is unsurprising that they tended to offer a narrative of recovery and growth. It is interesting, however, to find that gaining digital skills has become part of that growth narrative. In this way, too, we see that the processes of gaining or applying digital skills spans digital and physical domains, creating a dynamic and integrated process of learning, and resulting in skills that are transferable.

It is concerning to see that, since their daily lives are infused with digital media, leaving them little choice but to participate in the digital environment, the young people often saw themselves as individually tasked with learning to manage the digital world – or to struggle or suffer alone. There were few accounts of adults being seen as available to help them make sense of and learn from their actual experiences. Thus, although they might not use the term, digital skills are widely recognised as an important means of taking care of themselves online and this, in turn, is accepted as a personal responsibility – at least, the young people seemed to consider it acceptable, even a point of pride, that they should bear this burden alone. That said, the process of learning about the digital environment is commonly, even enthusiastically, shared with peers. Young people share what they struggle with, what they learn, and the ‘tricks of the trade’ through their everyday chat with friends and to gain their opinion and reactions. For example: *"If I am thinking about*



something difficult that happened online, I ask one of my friends who has knowledge, and she is also a friend in real life ... both of us know what we do on social media."¹¹⁴

In crucial ways, we suggest that learning digital skills is motivated partly by a desire to manage the digital environment for its own sake, but even more by the desire to participate in and through the digital environment, and not feel left behind. While the theory-led classification of skills according to these dimensions makes sense to the young people we interviewed, as well as to us when analysing their responses, what really matters to them is the lived experience that drives the need to develop digital skills and the imperative to flourish in a digital world (Keyes, 2005; Soots, 2015).¹¹⁵ Listening carefully to their interviews highlights a multiplicity of individual and collective digital skills that intersect or nuance or complicate the dimensions of skills, at times challenging normative accounts (e.g., that digital skills are beneficial, linked to opportunities rather than risks) and spanning online and offline experiences in ways that defy neat classification of knowledge. Most importantly, we suggest that building a model that fits 'average' or 'typical' young people leaves out much of the diversity that characterises the cohort as a whole, even risking being discriminatory in its blindness to non-normative experiences such as those of young people facing mental health difficulties and, perhaps, other vulnerable groups.

6.4. Digital experiences of coping

Research question 2 asked specifically how young people experienced the role of digital skills as part of their capacity to cope. The way children and young people cope with difficulties is thought to be one of several factors associated with later mental health outcomes (Compas et al., 1991; Jensen et al., 2013, 2015; Prinstein et al., 1996; Smith et al., 2017; Wolfers & Schneider, 2020). Coping is commonly defined as a purposeful response to stressful or challenging situations (Compas et al., 2017) and, where effective, can help build resilience (Vissenberg et al., 2022). Research shows that the type of coping strategy – technical, communicative, active or passive – depends on what kind of online risk young people are facing (Vandoninck and d'Haenens, 2015). Young people with better digital skills are found to be better at coping with online risk, and avoiding harm, but the evidence on this is limited (Vandoninck et al., 2013; Vissenberg et al., 2022).

In our interviews with young people with mental health difficulties, we have seen how online activities can generate stress, for example, through exposure to idealised pictures of others or the fear of missing out, because of the pressure to be available 24/7, to respond promptly to posts, and to try to avoid misunderstandings or threats. Given the prevalence of risky content sharing, online aggression and even sexual abuse described by the young people, we were interested in their digital coping skills.

In principle, the ways in which young people with mental health difficulties engage with the digital environment to cope with offline stressors may be distinguished from the ways in which they cope with online stressors through either digital or non-digital engagement. Both forms of coping require substantial knowledge of the digital environment and skills to utilise its benefits and manage the risks it affords. In practice, however, the young people's accounts of their digital lives complicate such a neat distinction, because their narratives shift across digital and non-digital contexts, both as regards the problems they encounter and the solutions they seek. When we analysed the interviews to understand more of how they coped with online stress, six main themes

¹¹⁴ Girl, 17, eating disorder, self-harm, online sexual abuse, online self-harm content (NF07).

¹¹⁵ 'Flourishing is the product of the pursuit and engagement of an authentic life that brings inner joy and happiness through meeting goals, being connected with life passions, and relishing in accomplishments through the peaks and valleys of life' (Soots, 2015: 1).



were inductively identified: venting, seeking validation, emotion-focused coping, cognitive-focused coping, using digital affordances, and seeking support.

Venting

Young people discussed dealing with a lot of emotions in their everyday lives, and one way to cope was to ‘vent’ online about their discontent and difficulties. Some of these experiences were related to dips in their mental health:

“If I’m sad, I do post some upsetting quotes, just about how shit life is.”¹¹⁶

Expressing and channelling their emotions in this way was helpful in itself, but some young people also discussed the need for a supportive response from their peers:

“If I’m sad, I cry on a video that I send my friend and then she comforts me ... we cry when we’re online together. We don’t like to cry face to face with people. ... It’s easier online. I don’t even cry in front of my mom.”¹¹⁷

One 17-year-old girl who has an eating disorder and self-harms talked about how she uses different platforms for different purposes, and sometimes she moves between different accounts on the same platform to accommodate her needs to vent her emotions:

“I also have different accounts for the same app ... say I’ve had a bad day, then I might use my anonymous account. Then I might chat to someone I know well and basically air my problems if I need someone to talk to. ... If you have a difficult day and you tell people, regardless of where you are, there are a lot of people who will get in touch with you and try to ... well, be there for you in a way ... and you end up feeling less alone ... they know what to say in a way and they’ve often been in the same situation themselves.”¹¹⁸

Letting off steam is not necessarily harmless – in some cases it involved ‘taking it out on’ others; in other cases, it meant that online spaces hosted a lot of negativity that affected some more vulnerable young people:

“If they’re feeling negative in themselves, or if they’re struggling with their mental health, or if they’re not in the right mind, then they might post something that’s horrible.”¹¹⁹

“If there is a lot of negativity and everyone seems to have had a really bad day, then it gets you down a little. Especially if you become concerned about something, because that will affect your mood.”¹²⁰

On occasion, using digital spaces to vent and cope with mental health issues creates a cycle of difficulty as it exposes other young people to narratives of struggle that can be triggering or overwhelming to those witnessing them. Such occasions require additional skills for avoiding negative content, curating a positive feed and recognising (at the time or later) the negative effects on your own mental health, as already discussed.

¹¹⁶ Young woman, 19, bullying and probable depressive disorder (UKF13).

¹¹⁷ Young woman, 19, online and offline sexual abuse and unwanted sharing of nude pictures (NF27).

¹¹⁸ Girl, 17, eating disorder, self-harm, online sexual abuse, online self-harm content (NF07).

¹¹⁹ Young woman, 18, probable anxiety disorder, suicidal thoughts (UKF14).

¹²⁰ Girl, 17, eating disorder, self-harm, online sexual abuse, online self-harm content (NF07).



Seeking validation

We have already discussed how young people use their information-seeking skills to understand more about mental health and their condition, and the importance of digital apps and platforms in young people's lives as tools for learning about their wellbeing. These experiences form an important part of their coping with uncertainty, stigma and social marginalisation, and help to normalise their mental health difficulties. Some describe how they look at others' posts and videos that reflect their own life situation and feelings, and how they may allow themselves to acknowledge difficult feelings or to cry. Reading others' posts on mental health difficulties is described as motivating and inspiring for finding ways to manage panic attacks, depression, self-harm and suicidal thoughts.

One 19-year-old young man talked about how social media could be helpful both to regulate feelings and as a source of information when he *"feels a bit crazy"*. In the interview he talks about being depressed and anxious, and that he is afraid of people. He thinks this is because of what happened to him online with bullying and unwanted sharing of sexual videos. He talks of the stress of online contact and also of how it is a coping tool:

*"If I'm not at work I check in at least every 15 minutes. ... If I'm at school maybe I can stay away one hour. ... If I am not on Snapchat for a while then I have to 'check in', then I feel relaxed. I feel good ... and then I think: Am I the only one who has experienced this? Then you can look at the comments and someone says: No, this happens to me every week. Then I think: Okay, there are a million others who experience this, I'm not mentally sick ... 'cause when you are crazy, you don't always know it yourself. ... Then you read this and feel it is more normal and it relaxes you. ... Then a couple of months later a friend comes up and says "Shit, I get so many sick thoughts. I feel crazy". And then I can say: Hey, no, that's just how it is to be a human being."*¹²¹

This young man illustrates how social media is time-consuming and stressful, but also a place where he can feel supported by learning that other people share his experiences. This can also reduce feelings of loneliness and estrangement:

*"There, in that social media and in that darkness of social media, they don't feel alone. They feel part of something. They feel validated, which CAMHS¹²² and adults don't do."*¹²³

The desire for validation described here resembles a process of self-recognition when young people learn to identify with their mental health in a way that is emotionally manageable and even positive:

*"Sometimes when I am sad, I can search for such things [self-harm]. ... It makes it easy to relate to, it is in a way others' perspectives of having a bad time. Not positive perspectives but ... it feels good in a way ... because it puts into words something I cannot describe by myself."*¹²⁴

Others look up their diagnosis online, and this helps them cope with uncertainty and feel more in control:

¹²¹ Young man, 19, anxiety, depression, online sexual abuse, cyberbullying (NM02).

¹²² Children and Adolescent Mental Health Services.

¹²³ Girl, 17, self-harm, sexual abuse, probable anxiety and depressive disorders (UKF05).

¹²⁴ Young woman, 18, depression, self-harm, suicidal ideation, online self-harm content (NF11).



“Is this me? Do I have that?”¹²⁵

“I’ve learned so much about autism from being online and people sharing their personal stories, and I’ve identified with it really well.”¹²⁶

Emotion-focused coping

Emotional coping through digital engagement describes how the participants used digital apps and platforms both as entertainment when they needed cheering up and as a distraction when they were experiencing difficulties. It was one of the popular coping strategies that young people used to manage the stress of everyday life or their mental health difficulties:

“I don’t mind messing about, doing, like, a silly video or a dance and a song, and posting it, sending it to my friends ... if I am feeling stressed, I’ll go watch a video just to occupy my mind.”¹²⁷

“I use my mobile a lot if I’m sad so it’s a distraction. I put on something funny to boost my feelings.”¹²⁸

Some participants highlighted how digital activity is a welcome distraction, and how they use different platforms or channels in regards to their shifting moods:

“Snapchat to connect with friends or if I am stressed. Instagram to be entertained, and YouTube as a distraction if having a hard time. Discord if feeling lonely.”¹²⁹

Some young people were concerned that using distraction as a coping strategy might not be helpful in the long run if it prevented them from dealing with the source of the problems:

“You can literally sit on your phone for hours and just look up pointless things to get your mind off the real problems that are going on. Your real anxieties. Your real depression. Or things that you’re going through. It was something to occupy my mind. Whether it was a good thing? Probably not, because I wasn’t dealing with the matter in hand.”¹³⁰

Cognitive-focused coping

Some young people explained how they tried to control their thoughts to make themselves feel better. One example of this is trying to minimise comments made online. One girl tells how an online comment upset her, so she gave it a lot of thought, to get the comment into perspective and avoid escalating the situation. In this way she copes cognitively by reappraising the statement to minimise its impact:

“When that girl told me to go kill myself and I was brain-dead, I remember that whole day I was just thinking about it and I was like should I reply back to her, should I tell her to do something. And I remember distinctly, I was on the bus, and I was still thinking about the

¹²⁵ Young woman, 18, depression, anxiety, PTSD, cyberbullying, online sexual abuse (NF15).

¹²⁶ Girl, 17, autism spectrum disorder, sexual abuse, PTSD (UKF04).

¹²⁷ Young woman, 19, bullying and probable depressive disorder (UKF13).

¹²⁸ Young woman, 19, online and offline sexual abuse and unwanted sharing of nude pictures (NF27).

¹²⁹ Young woman, 18, depression, anxiety, PTSD, cyberbullying, online sexual abuse (NF15).

¹³⁰ Young woman, 19, bullying and probable depressive disorder (UKF13).



whole comment. It is a big comment, but I have bigger things in life to be worrying about."¹³¹

One young man talked about how he feels sad and left out if he sees posts of his friends doing fun things without him. His way to cope with this is to block it out of his mind; later, he talks similarly of how he responds to the unwanted sharing of sexual videos:

*"You just have to block it out. Some things you have to ... you block it out and don't talk about it."*¹³²

Cognitive coping seems to be a valuable skill to master as a way of preserving yourself from online harm. However, the young people's coping abilities are also dependent on their emotional state. Several of them talked about how it is harder to cope during vulnerable periods:

*"When I see a picture on Instagram of a person who looks great that I wished I looked like I think 'Oh I wish I looked like that ... maybe I should start working out or stop eating'. But then on a good day when I'm feeling better then I think 'It's okay – it's just a picture'."*¹³³

*"I try to get my thoughts away from this- leave and take a break. I try to say to myself: okay – don't go down that road again. – I want to get better and not dig that hole. You have come a long way – don't go back."*¹³⁴

In addition to showing that coping abilities fluctuate, this young woman's statement demonstrates also that many young people use several coping strategies, such as emotional and cognitive. Being able to fluctuate and use several coping strategies is often a strength.

Using digital affordances for coping

Throughout this report we have noted the specific skills that young people use to manage their digital lives. Here we examine whether the specific affordances of the digital environment facilitate coping with online difficult and stressful experiences, highlighting the difference between 'knowing how to' and 'knowing when to' use these skills. Digital affordances appear most easily deployed when there is a clear, unambiguous threat, and they remain often insufficient to assist with complex friendship or relationship situations. For these, more subtle and complex skills are sometimes developed through experience and discussion of strategies with peers, as noted earlier.

Many of those interviewed described how they used blocking, for instance to end contact with a person who sent upsetting risk content, or how they unfollow the person or delete their comments or posts:

*"Block them. ... Keep things at a distance. For better and for worse."*¹³⁵

*"If somebody is saying things that you are taking offence to you need to tell somebody that you trust because they can help you deal with it. Or just ignore it or block them. If you're friends with them just ignore it."*¹³⁶

¹³¹ Girl, 17, history of probable binge-eating disorder and suicidal behaviours (UKF10).

¹³² Young man, 19, anxiety, depression, online sexual abuse, cyberbullying (NM02).

¹³³ Young woman, 19, online and offline sexual abuse and unwanted sharing of nude pictures (NF27).

¹³⁴ Young woman, 19, online sexual abuse, unwanted sharing of pictures (NF22).

¹³⁵ Young man, 19, anxiety, depression, online sexual abuse, cyberbullying (NM02).



One young woman described how she tries to handle receiving ‘dick pics’ – *“It is so gross, I just delete them right away”* – as well as the pressure to send intimate images:

*“If they keep pressuring me, then I don’t need them in my life. So I just deleted them from all my accounts.”*¹³⁷

While ‘deleting’ images or people sounds like a simple and effective tactic, when she talks further about unfollowing influencers who post pictures of their perfect bodies, because they make her feel bad about herself and her own body, we see that simple digital skills can be part of a more complex skill of ‘taking charge’:

*“I decided to take more charge of things since I wanted to feel better, so I started following accounts of people who are more like myself. I stopped following these models who look like I would like to look. I now follow funny accounts, where there’s lots of humour.”*¹³⁸

We heard something similar from a young woman – simple skills may reap deeper benefits:

*“It got to the point where I deleted all social media. All of it. ... My mental health, it improved, obviously. There was still issues, but it just showed that it just made me realise that there’s other things to the world than social media. It’s not an essential. It’s like a bonus.”*¹³⁹

Occasionally parents can support the use of such skills:

*“My mum and my dad. If I see something that’s not appropriate or offensive, then I will show them, and they will look through the profile and make sure it’s appropriate. If they see something offensive, they tell me to block them because then I can’t see anything that they’re putting out, especially, on social media.”*¹⁴⁰

However, deleting, blocking, unfollowing and even closing accounts are not without risk: *“I blocked him ... but the person you are blocking out may know where you live, and I was scared he would find me”*.¹⁴¹ This girl’s reflection shows how some coping strategies may be helpful, but they can also create new stress, illustrating that the young people are not fully in control. Another 17-year-old girl who was exposed to online sexual abuse and was self-harming talked about how she would post really nice pictures on Instagram when she was feeling bad, so she would get a lot of attention and ‘likes’, which subsequently made her feel better.¹⁴²

Some young people lack the digital skills to protect themselves. One girl was 14 when she was interviewed and had experienced bullying and sexual abuse online when she was 11. Her mother discovered the abuse because she checked her phone. She explained that because of the online abuse she now only has contact with people she knows: *“I kind of had to do it to get away from that stuff.”*¹⁴³ But she did not have the competence to end these contacts herself:

¹³⁶ Girl, 14, dissociative identity disorder (UKF01).

¹³⁷ Young woman, 19, online and offline sexual abuse and unwanted sharing of nude pictures (NF27).

¹³⁸ Young woman, 19, online and offline sexual abuse and unwanted sharing of nude pictures (NF27).

¹³⁹ Young woman, 18, probable anxiety disorder, suicidal thoughts (UKF14).

¹⁴⁰ Girl, 14, dissociative identity disorder (UKF01).

¹⁴¹ Girl, 16, PTSD, online sexual abuse (NF14).

¹⁴² Girl, 17, self-harm, online sexual abuse (NF18).

¹⁴³ Girl, 14, PTSD, online and offline bullying, online and offline sexual abuse (NF05).



No, it was my mum, because the police had my phone because of certain things that had happened, so my mum said I should remove everyone I didn't know so it wouldn't happen again. ... They looked through my phone, and she said I had to remove everyone I didn't know on Snapchat."¹⁴⁴

Two years later she was again contacted by an older man who also groomed her into sharing sexual videos that were then distributed. She says she knew that this was not good for her. This time she had the skills to block the person, but she chose not to. Her story exemplifies that having the digital skills to cope with online stress and risk is not helpful if they do not have the personal capacities to use these skills. For this girl, the abuse only ended when the man was arrested for abusing other girls.

Seeking support and building support systems online

One way of coping that many young people mentioned was seeking support from others and building support systems online. Online connections and communities offer an important opportunity for giving and receiving help, and young people value these support systems. They tend to revolve around the young people's social networks or personal interests such as films, games or hobbies and, while not necessarily concerned with mental health, they offer a feeling of belonging, friendship and attachment. They thus support trusted relationships where young people turn when they need help with their mental health. More specialised groups and networks sometimes form around common experiences of mental health difficulties, offering more targeted support:

*"I have met many people on Snap who have experienced a lot of what I have experienced. And then it's kind of, well, then it's okay to kind of talk a bit, to find out what feelings you actually have inside you."*¹⁴⁵

These social networks are where they can share difficulties with others without being judged and feel that they are not alone in experiencing these problems. It may be easier to share difficult online experiences if it happens while together with friends:

*"If it happens [asked to send photos] while I am online chatting with friends, I can tell them about what is happening. My friends have told me I should block those people."*¹⁴⁶

*"I normally turn to my friends because they are of a similar age range, a similar mindset, so they can see a different side that maybe I don't see."*¹⁴⁷

One 19-year-old young woman who experienced online sexual abuse and unwanted image sharing (NF22) said that she talks to friends who are on the same sites about how they feel about seeing triggering things, and this helps her. Others discussed how talking in specialised chatrooms helps them not self-harm or cope better in other ways:

*"I go to a chatroom. ... It's where people who have suicidal thoughts or want to cut themselves or have panic attacks are. You write things there and people help you. Then I feel the pressure is taken away so I don't have to do anything worse. That has helped me a lot."*¹⁴⁸

¹⁴⁴ Girl, 14, PTSD, online and offline bullying, online and offline sexual abuse (NF05).

¹⁴⁵ Girl, 14, dissociative identity disorder (UKF01).

¹⁴⁶ Young woman, 18, depression, anxiety, PTSD, cyberbullying, online sexual abuse (NF15).

¹⁴⁷ Girl, 17, history of probable anxiety and depressive disorders (UKF02).

¹⁴⁸ Girl, 17, self-harm, online sexual abuse (NF18).



“I often find with my Instagram account that we all have something in common, maybe it’s that you live at an institution, or you have been admitted or maybe you feel you can talk about ... what can I say. More about mental health and stuff like that really. ... I think I am more honest in these groups. ... I don’t think many of them know exactly who I am online. ... I think that’s why I’m more honest.”¹⁴⁹

“There are loads of online chat groups and rooms about autism for people who are recently diagnosed, going through the process or have diagnosed themselves. And ultimately places like that are really good, because it’s like a peer support group, but online. ... I’m in a community at the moment based around people who have left a religion. And around Christmas time it’s really difficult for us because we can be disadvantaged and things like that, and we do Christmas games, and we all do group phone calls on Zoom and things like that. So, it’s really good for when you need support. Everyone’s tooled with at least some form of mental health support services that they can provide to you.”¹⁵⁰

Some participants describe asking for or offering support and sharing difficult experiences that might bring them closer to their online friends. One 18-year-old young woman who had experienced online sexual abuse and bullying explained how all her social support is connected to online activities and groups, and building connections online helps her overcome her anxiety and build her social confidence:

“Especially when you have anxiety and depression and stuff like that. Because then you really over-think everything. ... I would feel lonely without social media. I think my anxiety would have gotten worse. ... You kind of get brighter thoughts if you’re going to meet new people in real life ... because if you talk to them on Snap, you can find out already whether you have something in common or not. ...”¹⁵¹

She also shared how the opportunity to help others is helpful for her as it gives her a sense of purpose and self-worth:

“It’s extra fun when you can kind of help the other person. ... There have been many times when I’ve sat for hours and written to different people. Because they needed a person who didn’t know who they were, who could talk to them. ... And if I can’t help them, at least I’ve tried. And it’s kind of something that helps me be part of everyday life, which kind of makes me feel like I’m kind of worth something, because I could help a person.”¹⁵²

One 17-year-old girl with an eating disorder who self-harms said she talks to others online if she has experienced something online that upsets her:

“Like, if someone has said that they are going to kill themselves, I might have spoken to someone about it ... like: ‘Hi, did you see her post?’ – basically, ‘I’m really worried.’ They might say: ‘I know, but I talked to one of her friends and she is being looked after’ or something. So, you might get some information that will help you calm down.”¹⁵³

Another young girl spoke about how she saves coping advice she finds online:

¹⁴⁹ Girl, 17, eating disorder, self-harm, online sexual abuse, online self-harm content (NF07).

¹⁵⁰ Girl, 17, autism spectrum disorder, sexual abuse, PTSD (UKF04).

¹⁵¹ Young woman, 18, PTSD, bullying, online sexual abuse (NF01).

¹⁵² Young woman, 18, PTSD, bullying, online sexual abuse (NF01).

¹⁵³ Girl, 17, eating disorder, self-harm, online sexual abuse, online self-harm content (NF07).



“On Twitter sometimes there are feeds trending or threads trending on my feed where it’s like ways to cope. And I have got a bunch of those added to my bookmarks so that I can go to them quickly. ... Sometimes there’s a lot of people who share, like all my friends, that share different things about how they cope and stuff.”¹⁵⁴

Sometimes seeking support from others with similar problems and the expectancy of sharing stories can cause more stress:

“One of the things that I didn’t really prepare myself for was, obviously going into an online chatroom where I thought everyone had the similar problems, so we can all, in a way, empathise with each other. I didn’t prepare myself for the trauma dump that you’d get and the amount of people that talk about really heavy content or their parents doing this to them or the way they’ve been treated or raped, or whatever.”¹⁵⁵

Conclusions on coping

The findings on coping reveal how young people with mental health difficulties try to manage online stress and other problems by using a range of strategies. Coping through using social, emotional and cognitive skills is crucial, but throughout this section we have also seen how digital skills are increasingly important. These range from straightforward skills such as blocking hostile individuals to more complex skills such as searching for and determining the trustworthiness of niche chatrooms or online communities. The young people are, we have shown, keen learners who task themselves with the responsibility of coping with difficulties and resolving problems, whether through venting, gaining knowledge, attempting to change their feelings and thoughts, using online skills to resolve stress online or by seeking validation and support online.

According to Lazarus and Folkman (1984), different coping strategies can be globally characterised as either problem- or emotion-focused ones. Problem-focused coping attempts to improve the stressful situation by doing something active, such as confrontation, seeking information or generating possible solutions to a problem. Emotion-focused coping includes generating thoughts and feelings to try to reduce the feeling of stress, such as distancing, avoidance, selective attention, making positive comparisons, expressing emotions, seeking comfort and support from others, and trying to avoid the source of stress.

The young people we interviewed mentioned most of these strategies. This shows that coping with online stress is very similar to coping with offline stressors, except that digital skills are now necessary.¹⁵⁶ In our interviews we were struck by the young people’s numerous efforts to handle often extremely stressful situations with agency and expertise, notwithstanding their mental health difficulties. We have also noted, however, that some of their stories revealed moments where they failed to cope and remained overwhelmed by the difficulties they faced, either on- or offline. These were situations when they needed help and support, and generally they continued trying to deal with the difficulties on their own, sometimes until things got out of control.

¹⁵⁴ Girl, 17, probable depressive disorder, panic episodes and possible self-harm, following a period of bullying (UKF16).

¹⁵⁵ Girl, 17, history of probable binge-eating disorder and suicidal behaviours (UKF10).

¹⁵⁶ Our findings partly support the earlier EU Kids Online research (d’Haenens et al., 2013), which identified *fatalistic or passive coping*, such as hoping the problem will go away by itself and stop using the internet for a while; *communicative coping*, which includes talking to somebody about the problem; and *proactive coping (problem-solving)*, such as trying to fix the problem, deleting unwelcome messages and blocking the sender. In the 10-year update, one-third of children (aged 9–16) reported fatalistic or passive coping, while the majority tried a range of communicative and proactive strategies, including those mentioned in this report (deleting messages, blocking people, stopped using the internet for a while, etc.) (Smahel et al., 2020).



6.5. Barriers to help-seeking and disclosure

One crucial starting point for seeking and receiving help is that young people are able to disclose specific problems they have experienced to others. We learned that too often they felt unable to disclose:

“No, I didn’t really tell anyone. I didn’t tell the police and I wasn’t in school at the time. And when I told my mum I was 18. I didn’t really tell her anything about the social media part of it, I just told her about what happened in person.”¹⁵⁷

“The advice I think I’ll give is that they must talk to their parents, or to an adult, or a social worker at school then, or a health nurse. Talk to someone who can help you ... it’s so important to tell. So, do not be ashamed that you have done it, because everyone has done it. Everyone has been there.”¹⁵⁸

In other interviews, we found that some young people described seeking help or advice from others, most often friends: *“because they are of a similar age range, a similar mindset, so they can see a different side that maybe I don’t see”¹⁵⁹*, but also sometimes family members or professional help (as is also found in survey research; see El-Asam et al., 2022; Smahel et al., 2020).¹⁶⁰ While help-seeking represents a coping strategy, as already discussed in Section 6.4, especially in relation to seeking support and building community, we devote this section to what the young people experienced as barriers to disclosing their experiences.

Just as risky platform design impedes young people effectively exercising their digital skills, we might say that problematic social norms and understanding appear to impede young people gaining help when they most need it, and this surely merits intervention in its own right. Here we recognise and then examine the nature of those barriers to talking to someone who can help. The young people highlighted a series of barriers that are also discussed in the abuse and trauma literature (Augusti & Myhre, 2021; Jensen et al., 2005; Lemaigre et al., 2017; Thoresen et al., 2014). We grouped them under six different themes: lack of understanding; adults not understanding; lack of trust; worried about the consequences; not wanting to be a burden; and talking causes emotional turmoil.

Lack of understanding

Some young people were very young when their problems started. In the case of two girls who were subjected to sexual solicitation, their young age limited their capacity to understand the consequences of what they were engaging in. One girl was only 11 when the first sexual online abuse happened, which lasted one-and-a-half years. She says that at first, she didn’t understand that sharing sexualised pictures with an older person was wrong, and that this person had posted the pictures online:

“It was my sister’s friend ... he was 21. ... Well, I didn’t think too much about it, because I kind of had good friends, family, so it was just that one person, and it went on for a long time, constantly. But because I was so young, I didn’t think too much about the fact that it

¹⁵⁷ Young woman, 18, sexual abuse (UKF07).

¹⁵⁸ Young woman 19, online and offline sexual abuse and unwanted sharing of nude pictures (NF27).

¹⁵⁹ Girl, 17, history of probable anxiety and depressive disorders (UKF02).

¹⁶⁰ In the 2017–18 EU Kids Online survey of 9- to 16-year-olds, around half of them talked to a friend and four in ten talked to a parent about ‘The last time something happened online that bothered or upset you.’ However, one in five didn’t talk to anyone, and only 3% talked to a professional who works with children (Smahel et al., 2020).



was actually not okay. So, it didn't affect me that much until the police got involved ... that's when I really understood what had happened."¹⁶¹

For this girl, the fact that the abuser was her sister's friend may have added to her confusion about what was happening. Many adult offenders build a relationship of trust and emotional connection (grooming), so the boundaries between a friend and an abuser become blurred. Many may not be aware of what is defined as an offence, as another girl explained:

*"I ended the abusive relationship because I figured out that he was cheating on me. And then I identified what had happened constitutes sexual assault, and things like that. ... I looked up the definition of rape online and figured it out."*¹⁶²

These two girls demonstrate that lack of knowledge may be an important disclosure barrier, which points to the need for also disseminating information about online abuse to young people.

Adults not understanding

This barrier refers to young people's perceptions that adults lack sufficient knowledge, understanding or competency of digital technologies and will not, therefore, be able to offer useful advice:

*"Because going to your mother and telling her about it, 'Mom, I get bullied, because I have such a high Snap score', it's not exactly easy. Because a mother wouldn't really understand, because she wasn't the one experiencing it. So, I kind of feel that going to a parent about something that's going on online, it's really difficult ... because when they were young, when adults were young, they didn't have social media. They barely had phones ... they're not going to understand it anyway, so why spend your time trying to explain it?"*¹⁶³

Here it was not only her mother's lack of digital understanding, but also her lack of personal experience that kept this young woman from talking to her mother. This is a typical disclosure barrier (see Thoresen et al., 2014), because young people place considerable value on personal experience. Another young woman expressed the same concern when she said: *"My dad? Well, he doesn't understand mental health issues"*¹⁶⁴

One girl speculates that adults' lack of understanding lies not just in their unwillingness to engage, but also in their underlying judgmental attitudes towards young people:

*"Yes, quite judgemental, and the thing is the older generation, they had groups that they could go to in person. But during COVID a lot of people just didn't have that sense of community outside of there because they couldn't meet up with people. So, we've had so much reliance on social media and on technology to make us feel less isolated, and feel validated, and they don't understand it because they're choosing not to."*¹⁶⁵

Misunderstanding plus judgement easily adds up to blame, in young people's eyes:

¹⁶¹ Girl, 14, PTSD, online and offline bullying, online and offline sexual abuse (NF05).

¹⁶² Girl, 17, autism spectrum disorder, sexual abuse, PTSD (UKF04).

¹⁶³ Young woman, 18, PTSD, bullying, online sexual abuse (NF01).

¹⁶⁴ Young woman, 19, online sexual abuse, unwanted sharing of pictures (NF22).

¹⁶⁵ Girl, 17, self-harm, sexual abuse, probable anxiety and depressive disorders (UKF05).



“I was afraid my parents would think it was my fault.”¹⁶⁶

Feelings of shame and guilt are common disclosure barriers, and some of the young people in our interviews explained that when they felt adults did not understand their digital involvement, this added to their feeling of doing something wrong or unacceptable.

Young people’s view that adults don’t understand their digital lives extends beyond parents to other adults including, significantly, teachers and therapists. The young people interpret the advice that they often receive as a demonstration of how little adults understand of their digital lives, especially the ways in which their on- and offline lives are so intertwined, and that there are positives as well as negatives:

“I don’t think everyone really listens to the teachers because you can’t relate to them. If they’re telling you, don’t do this, you’re like, but that’s fun.”¹⁶⁷

“Some [teachers] say ‘if it is a problem then you should not be on social media ... then you feel you are not understood at all.’¹⁶⁸

“[From CAMHS] their viewpoint was, turn your phone off. It shouldn’t affect you if you don’t look at it.”¹⁶⁹

For these young people, turning off devices to solve one problem may just cause another, such as social exclusion and feeling lonely. In these cases, the young people often felt misunderstood and left alone to cope with challenging experiences online. One girl who was engaged in online harmful content said:

“I don’t talk to my therapist. It just isn’t relevant because they don’t understand anyway. Adults understand the basic things like how it feels to be excluded, but they don’t understand the rest. There is a whole different world out there. ... But she could have asked. It would have been okay if she asked me what I do online.”¹⁷⁰

She added that her therapist never asked her about her online engagement, perhaps interpreting this as the therapist not caring about, or recognising, the importance of this part of her life. Yet for young people to disclose sensitive and personal experiences, a sense of understanding and connectedness is vital – this is essential for development and is facilitated by empathy. If young people do not expect others to be able to understand their unique experiences, they are left alone with feelings of estrangement that can lead to rumination and depression.

Lack of trust

Related to the perception that adults do not understand their problems is the question of trust: lack of trust was commonly mentioned by young people as a barrier to disclosure. For instance, some had experienced offline bullying, and when they told their teachers about this, nothing happened, so they had no expectation that reporting online bullying would be helpful:

¹⁶⁶ Young woman, 18, PTSD, bullying, online sexual abuse (NF01).

¹⁶⁷ Girl, 14, history of a subclinical eating disorder and depressed mood (UKF15).

¹⁶⁸ Girl, 17, eating disorder, self-harm, online sexual abuse, online self-harm content (NF07).

¹⁶⁹ Girl, 17, autism spectrum disorder, sexual abuse, PTSD (UKF04).

¹⁷⁰ Girl, 16, eating disorder, depression, self-harm, suicidal ideation, online pro-ana and self-harm content (NF04).



“I have never had good experiences with teachers. So, to go to them when something has happened, well, that was not an option. I was in a fight at school, the teachers just turned the other way. They didn’t even call my mom.”¹⁷¹

Another boy expresses the same:

“I told my teacher about being bullied when I was in elementary school. That led to more bullying. I told them about violence at home when I was in junior high school and then my stepdad beat me more. So, there is really no point in talking to others [about online bullying and unwanted sharing of sexual pictures].”¹⁷²

Unfortunately, such negative accounts appear commonplace and can be harmful for young people’s development. Children learn from earlier experiences to anticipate the future. They also need help to interpret complex or ambiguous or upsetting situations, especially if they are not to blame themselves for what has happened, leading to guilt and shame that, in turn, lead to secrecy. Young people with adverse experiences often develop negative appraisals of themselves and the world, and these are often linked to a range of mental health difficulties (Jensen et al., 2018; Meiser-Steadman et al., 2019; Mitchell et al., 2017). Whether the adverse experiences are online or offline seem to be of lesser importance.

Worried about the consequences

Not only can the immediate problematic situation be difficult to interpret, but it can also be hard to anticipate the consequences – both of the situation itself, and of reporting it. For example, some young people with mental health difficulties reported receiving threats from their abuser if they told someone or did not do what they were asked to do (such as send a nude picture). One 14-year-old girl who experienced online sexual grooming by an older man when she was 11 said she didn’t dare say anything to anyone because she was afraid this man would get angry at her and contact her offline. Also, she was afraid of what her parents would say, and whether they would get mad at her.¹⁷³ Similarly an 18-year-old girl experienced online grooming by an older man followed by offline sexual abuse. She, too, was afraid to tell her parents, and it took her a long time to disclose the situation to her mum, long after the relationship had ended:

“Ages after I ended up telling my mum. ... I feel like she understood because she’s been in situations of abuse before. So, she was really understanding about it, but I know that she was understanding about it because I was out of the situation. But if I were to come to her and say ‘I really like this man who I’ve met online, he’s 27, 26’ she would kick me out, she would be so annoyed. So, I think she was relieved that I was being smart, and I knew it was wrong. Coming to her and telling her.”¹⁷⁴

One girl talked about being threatened: *“I couldn’t say anything ... he threatened to take his own life. I finally told my friend after she told me the same thing had happened to her.”¹⁷⁵* Another mentioned the mandatory reporting obligation as a reason for not disclosing to teachers: *“I think no student at this age would talk to their teachers. Only because they’ve got such a strict protocol of reporting back to staff”.*¹⁷⁶ She was typical of many young people who said they would not report problems to their parents: *“These days no one tells their parents anything. Everyone’s really good at hiding stuff. Which is why you’ve got the spam accounts or the private stories. I*

¹⁷¹ Girl, 14, PTSD, online and offline bullying, online and offline sexual abuse (NF05).

¹⁷² Boy, 17, cyberbullying, online sexual abuse, unwanted sharing of pictures (NM01).

¹⁷³ Girl, 14, PTSD, online and offline bullying, online and offline sexual abuse (NF05).

¹⁷⁴ Young woman, 18, sexual abuse (UKF07).

¹⁷⁵ Girl, 16, PTSD, self-harm, online sexual abuse, online self-harm content (NF12).

¹⁷⁶ Girl, 17, history of probable binge-eating disorder and suicidal behaviours (UKF10).



definitely use my private stories. When I'm ever mad at my mum, I'll go and moan about her on there." As already observed, this may be because she fears her parents won't understand, but the fear that parents will react punitively is often a barrier too.

Interestingly, some young people also had secret accounts that their friends didn't know about, making it hard to ask for help, and some felt a loyalty to the social media group, such that reporting a problem would seem a betrayal. As one girl stated: *"It feels like telling a secret to talk about the online community."*¹⁷⁷ She added that she *"would have appreciated to talk about it"* with her therapist, but *"it feels like backbiting a good friend, and that is not something I want to do."*

Another girl concurs, also prioritising the safety and future of her secret social network over disclosure of the problems that these can bring:

*"It is a secret, closed network and everyone has private profiles. If you want to connect to those people, you cannot just ask them. You have to send them a message and then you have to keep it secret. ... I know people who have talked to their therapists about their involvement, but many do not. And I do feel that it is like revealing a big secret."*¹⁷⁸

Finally, and most obviously, young people feared that disclosing about their online activity to an adult would lead to loss of online privileges, even that apps or platforms would be forcibly shut down if adults knew about what was going on.

Not wanting to be a burden

Children and young people are often very protective of their families, and many described how they did not want to burden them. By dealing with problematic situations on their own, they try to protect them and, perhaps, also try not to disappoint them:

*"There has been so much hassle with me growing up, so I didn't want to add one more thing to the list. ...I used to talk to my mom but there have been some things, so I really don't think she is a good parent."*¹⁷⁹

*"I'd be really anxious. Really anxious. But my mum, because she's so busy and there's eight of us, I'm a child of eight, so I'd never ... want to worry my mum. Because she works long hours, she's a nurse. And my stepdad, he's got his own business, and stuff like that. They were always busy, and I never really wanted to mention anything."*¹⁸⁰

*"I'm not going to tell mother, because she would be disappointed."*¹⁸¹

*"I can't talk to mom about these deep things. She doesn't know I am on these sites, and I don't want her to worry. I don't feel so comfortable talking to her when it is so bad. I want to protect her."*¹⁸²

Particularly when the parents have personal issues to deal with, the young people are sensitive to the additional burden disclosure puts on them. One girl, for instance, talked about how her parents

¹⁷⁷ Girl, 17, eating disorder, self-harm, online sexual abuse, online self-harm content (NF07).

¹⁷⁸ Girl, 17, eating disorder, self-harm, online sexual abuse, online self-harm content (NF07).

¹⁷⁹ Young man, 19, anxiety, depression, online sexual abuse, cyberbullying (NM02).

¹⁸⁰ Young woman, 18, probable anxiety disorder, suicidal thoughts (UKF14).

¹⁸¹ Young woman, 18, PTSD, bullying, online sexual abuse (NF01).

¹⁸² Young woman, 19, online sexual abuse, unwanted sharing of pictures (NF22).



were divorced.¹⁸³ Under these circumstances, talking about what happened became such an extra burden on her parents because they had to get together and talk. And the fact that her father had to travel far to get to them also concerned her.

Talking causes emotional turmoil

Commonly the young people talked about how emotionally difficult it was to share their experiences with someone – feeling stupid, embarrassed, ashamed or guilty could stop them from telling others and, thereby, seeking help:

“I was afraid of being seen as stupid because I know deep down that the things that are on a forum are not right.”¹⁸⁴

Another young woman told us that when she was 13 years old:

“Some nude pictures of me were shared online. I felt so ashamed. I was too embarrassed to tell my parents and I thought they would get mad. So, I told my teacher, and she arranged a meeting with my mom. She was actually very understanding and didn’t get mad.”¹⁸⁵

In this case, it turned out to be easier to tell her teacher because her classmates were teasing her about the pictures at school. She also trusted her teacher to handle the situation, both at school and with her parents, talking to the young woman’s mother alone.

Several young people also talked about not wanting to disclose for fear of not being believed or supported:

“And getting help after that was so difficult, especially with my friends, because all my friends knew him, and they put him on a pedestal. Everyone thought it was amazing because he was older. So, if I told anyone, they would take his side, so I just didn’t really tell anyone.”¹⁸⁶

Even if the audience is sympathetic, talking about some emotionally disturbing situations can be extremely painful, and this in itself keeps young people from disclosing. One young man who was sexually abused and bullied explains:

“I chose to not tell anyone. Not my parents and not the police. It was soooo bad. It is so hard to talk about. ... When you start talking, that is when you understand how much it has affected you. ... I told my therapist now. And it was like – oh here is a lot of stuff I’ve kept inside for so long. I wonder if this is why I have been so mad and sad and isolated myself and started hanging out with the wrong people.”¹⁸⁷

Importantly, several young people mentioned that no one asked them about their online experiences, and if they had, it would have been easier for them to disclose:

“My therapist didn’t ask me before, coincidentally, there were a lot of newspaper headlines about this [harmful online content]. Had she asked me before. I wouldn’t have

¹⁸³ Girl, 14, PTSD, online and offline bullying, online and offline sexual abuse (NF05).

¹⁸⁴ Girl, 17, eating disorder, self-harm, suicidal ideation, online self-harm content (NF02).

¹⁸⁵ Young woman, 19, online and offline sexual abuse and unwanted sharing of nude pictures (NF27).

¹⁸⁶ Young woman, 18, sexual abuse (UKF07).

¹⁸⁷ Young man, 19, anxiety, depression, online sexual abuse, cyberbullying (NM02).



lied to her, but I never would have brought it up had she not asked. It is much easier if someone else brings it up."¹⁸⁸

The difficulty of disclosing online problems seems to be recognised as fairly common. One girl offers this advice, reflecting her understanding of this barrier:

*"If you know someone is vulnerable, definitely try your best to keep them safe. And if they do make mistakes, be sympathetic rather than blame them because they're already blaming themselves."*¹⁸⁹

Although we have distinguished several barriers to disclosure revealed by our interviews, for most of the young people, these were tangled together, especially in the more extreme instances. One girl's narrative gives us a good picture of the struggles they encounter and the complex feelings and thoughts that contribute to them not disclosing abuse. She was only 13 when she became involved in sending sexual pictures to an older man. She was sitting at home bored when a person asked her to add him as a friend. He said he was 19. She added him as a friend, and he sent her a nice picture of himself – which turned out to be fake. She sent a picture of her face and he complimented her. After this there was a period of several weeks of grooming that led to more and more sexualised pictures – several hundred in all. After some time, it became known at school that this person had contacted several girls. As the girl thought she was the only one who had sent pictures, and felt ashamed, she didn't tell anyone. What she didn't realise was that the man had saved the pictures and shared them online. When she was at a friend's house, her friend received a naked picture of her from the offender. This was when she broke down and told her friend and her mum what had happened. Everyone at school heard about this and the boys kept asking her to send pictures: *"They kept saying please, please, and since I had sent so many pictures to that guy – I was so used to it – so no problem. So, I ended up sending them pictures. ... I thought: it can't get any worse."* She even received money for each picture. However, she also became isolated, developed serious anxiety and depression, and self-harmed. Although she is doing fairly well now in her life, she goes to therapy and has a PTSD diagnosis. Arguably, had she been helped to disclose what was happening earlier, she might have been spared many further years of degrading behaviour and negative self-worth. In her interview, she acknowledged learning about digital responsibility at school:

*"We talked about it at school – so we should not get into these situations. I thought: 'how could I be so stupid!' I felt so embarrassed and shameful. So I didn't want to tell anyone before I told my friend that day and then it had lasted a long time."*¹⁹⁰

Conclusions on help-seeking and disclosure

The findings from this study support earlier offline victimisation research showing that it is often difficult and emotionally distressing for young people to talk about something secret, confusing and distressing: they are sensitive to others' reactions and whether their experiences will be misinterpreted, and may fear the consequences of disclosure, including that they may be blamed for what happened (Augusti & Myhre, 2021; Boulton et al., 2017; Jensen et al., 2005; Lemaigre et al., 2017; Stige et al., 2022; Thoresen et al., 2014). Interestingly, no young person in our study mentioned the fear of not being believed as a reason for non-disclosure, possibly because there are often witnesses to online bullying, while for online sexual solicitation there may be stored or shared pictures and videos.

¹⁸⁸ Girl, 17, eating disorder, self-harm, online sexual abuse, online self-harm content (NF07).

¹⁸⁹ Girl, 17, autism spectrum disorder, sexual abuse, PTSD (UKF04).

¹⁹⁰ Girl, 17, self-harm, online sexual abuse (NF18)



Withholding secrets is not uncommon, and young people are not expected to share everything in their lives with other adults (Fuller et al., 2001; Liberman, 2020; Rotenberg, 1995; Watson & Valtin, 1997). Nonetheless, self-disclosure is common practice in family life and peer relationships, with both parents and friends expecting that important life experiences will be discussed (Buhrmester & Prager, 1995). When young people do not disclose personal experiences, this can constitute a breach in normal expectations, in and of itself leading a parent or caregiver to become concerned. However, parental assumptions may differ in relation to online experiences – here, if their child says nothing, parents may assume that there is nothing to tell.

Importantly, disclosure is necessary for the initiation of protective action. From a mental health standpoint, disclosure may begin a process of recovering from the effects of negative experiences. From a developmental perspective, disclosure will often be the first step for caregivers to engage in developmentally supportive dialogue that aids the young person in their understanding of what happened so they avoid self-blame or shame and can protect themselves in the future. Consequently, when young people experience negative or harmful experiences on- or offline that they do not disclose, this may have significant social, emotional, interpersonal and sometimes legal consequences.

Our findings are in line with other studies showing that disclosure becomes less difficult if young people perceive that there is an *opportunity* to talk and a *purpose* for speaking, and if others *initiate* the topic of victimisation (Jensen et al., 2005; Lemaigre et al., 2017; Stige et al., 2022). Young people therefore need a supportive structure or scaffolding from trusted adults in order for them to reveal their experiences. Our results point to the importance of establishing trustful relationships and creating spaces where victimisation can be explored. This now applies in relation to problems experienced online as much as offline. In these cases, too, adults need to be non-judgemental and genuinely interested in the young person’s experiences so as not to compound feelings of shame and guilt. Lastly, since fear of consequences is a barrier to disclosure, it seems important to involve young people themselves in discussions about what can be done to ensure their future protection.

6.6. Young people’s insights and advice to relevant stakeholders

Research question 3 asked, what recommendations can be drawn from young people’s experiences that may inform mental health professionals, schools, companies, regulators and the public to support young people’s digital lives? This project, and ySKILLS more generally, has adopted a broadly child rights framing, including a commitment to youth voice. As we explained to the young people we interviewed, *“We will use the results to provide guidance to professional support and youth services as well as the tech industry and government. As part of our interview today, we will ask you what advice you might have for mental health services too.”* A child rights approach asserts, among other important principles, that children’s voices should be heard in matters that affect them, and that their best interests should be a primary consideration for all. In writing this report, and seeking to disseminate its findings, we hope to honour this promise to the young people we interviewed.

In this report, we have already reported on many insights from the young people that can and should guide policy and provision to support their mental health. In this section we recognise young people’s explicit calls on stakeholders, including by supporting their digital skills and wellbeing. A red thread throughout this section is that young people call on adults – first and foremost, mental health services, as well as parents and caregivers, teachers and other relevant professions, and then policy makers and, notably, tech companies – to support their agency in finding positive ways for them to engage and grow in a digital world, but also to listen



sympathetically to what they find difficult there. Finally, explicitly and implicitly, young people also offer advice to and wish to support each other, as we also document.

Advice to mental health professionals, therapists and support services

There is a lively interest among mental health professionals and policy makers about the nature of provision for young people with mental health difficulties, including whether this can be digitally mediated (Hollis et al., 2017). Young people often search for sensitive, accurate, relatable information, to increase their awareness and understanding of what they are experiencing. But what would the participants themselves wish of their therapists and others addressed, in terms of support, training, knowledge and approach? In Section 7, we summarise key recommendations for stakeholders, based on the foregoing findings. But first, we discuss how and why young people offer particular advice to professionals, contextualised within their lived experience of mental health difficulties, and of what happens in the therapy room.

The young people we interviewed generally saw the importance of professional mental health help online, whether provided by means of voice, text or an app:

“I feel like a lot of hotlines now have a way of not actually speaking on the phone if you’re uncomfortable. You can just message them, and I feel like messaging is better because you’re able to type out and really think about what you want to say. I feel like people are more comfortable that way because people aren’t as confident speaking in person as they are online.”¹⁹¹

“I must be on social media everyday. But I downloaded an app called Hold. Then you can see how long you have used, and you get points you can buy things with – like coffee.”¹⁹²

Such resources are significant since it appears that one factor leading young people with mental health difficulties to look for online help is when traditional sources of help, formal or informal, are insufficient (Dubicka & Theodosiou, 2020; Rost et al., 2020; Schueller, 2022).¹⁹³ Yet professional support provided online (and offline, at least in the UK) appeared under-resourced:

“The support services that were online, everyone was relying on them, because you wasn’t getting therapy face to face, and you weren’t getting therapy at all if you were on the waiting list. So, services like Kooth, Childline chat, stuff like that, they were overloaded as well. ... If you are in crisis and you need someone to talk to, you need that support straight away, and I think it’s quite isolating to those young people in that situation, not getting that support at the time that they need it. Just because they don’t feel like they’re worthy enough or that they’re good enough.”¹⁹⁴

The design of apps matters. Although we did not pursue this in our research, we heard more positive evaluation of simple tracking apps:

“I didn’t like the whole voice talking to you and it just reminded me of voices and stuff. And it felt like someone was trying to get into my head. I feel like a better way, there is this

¹⁹¹ Young woman, 18, sexual abuse (UKF07).

¹⁹² Young man, 19, anxiety, depression, online sexual abuse, cyberbullying (NM02).

¹⁹³ This became more pronounced in a post-COVID-19 world, where young people’s mental health needs soared, and support became even more limited. Furthermore, clinical services can be deficient in their assessment of young people insofar as they fail to recognise the importance of their digital lives, especially at such a time.

¹⁹⁴ Girl, 17, self-harm, abuse, probable anxiety and depressive disorders (UKF05).



app that a lot of teenagers use ... it counts how many days you haven't cut yourselves for. It's meant to be an app for sobriety and not drinking alcohol, but people use it for cuts."¹⁹⁵

*"Yesterday, it was six months since I self-harmed. ... I have an app that does that [reminds me how long I have not self-harmed] ... it sends me monthly messages ... it gives you kind of a reward."*¹⁹⁶

Some young people appreciated being signposted to services automatically based on search terms, this being a service that some search engines provide as part of their trust and safety provision:

*"I typed in, the rape thing. What counts as rape? Then I feel like hotlines for, helplines."*¹⁹⁷

*"Sometimes on Google it comes with a pop-up saying, if you need support, click here."*¹⁹⁸

The presence of professionals on the platforms that young people frequent is not very common, but again, they seemed to appreciate being able to hear from a trusted resource, although this support may not always be reliable:

*"There was a doctor that I used to follow on TikTok, and then he left or just stopped posting. He basically said everything, it was like a therapy type thing, and he shows what people actually see and what actually happens. And I thought it was really interesting to see how different the sides of mental health are."*¹⁹⁹

Such digital resources are increasingly provided and used, whether reliable and effective or not, and clearly, they fill a gap: we found that some of the participants had talked to their therapist at the clinic about their online engagement and difficulties, while others had not. When it comes to face-to-face therapy, much seems to depend on whether the therapist asks the young person about their digital life, preferably in a direct, concrete and non-judgmental way:

*"If I experience something difficult online, I would appreciate talking to my therapist about it. ... It was easier when my therapist asked about it. I would not have brought it up by myself. ... She just said: 'We have not talked so much about social media'. And I agreed. And then she asked if I had experienced something difficult and how I used social media. So, I think it is just to ask, ask an open question."*²⁰⁰

*"I think it is something every therapist should ask about. There are many people who have experienced online bullying or sexual abuse. ... If you have to tell me about it yourself you may think, 'I am overreacting, maybe it is my own fault'. But if someone asks you, it becomes more 'normal' in a way."*²⁰¹

But, as noted earlier (see Section 6.5 on barriers to disclosure), young people are put off if they think their therapist doesn't know anything about social media:

¹⁹⁵ Boy, 17, bipolar disorder (UKM08).

¹⁹⁶ Girl, 16, PTSD, self-harm, online sexual abuse, online self-harm content (NF12).

¹⁹⁷ Young woman, 18, sexual abuse (UKF07).

¹⁹⁸ Girl, 17, autism spectrum disorder, sexual abuse, PTSD (UKF04).

¹⁹⁹ Girl, 14, dissociative identity disorder (UKF01).

²⁰⁰ Girl, 17, eating disorder, self-harm, online sexual abuse, online self-harm content (NF07).

²⁰¹ Girl, 16, PTSD, self-harm, online sexual abuse, online self-harm content (NF12).



“Maybe it is easier when the therapist is younger. ... If they do not know what Snapchat is, it becomes very difficult to get them to understand.”²⁰²

Therefore, the young people recommended that therapists ask direct questions and dig a little. The resulting reflections could not only generate discussion but also help the young person become aware of the role of social media in their life:

“I think it had been nice to talk to someone about it. So that you can become more conscious and reflect upon what you are posting and how it affects you.”²⁰³

Furthermore, young people want support that is relatable and applicable – and they are concerned that the lack of understanding about their digital lives may result in advice that was irrelevant or impossible to implement in everyday life. Thus, the call for digital skills in this respect might be more about the need to build digital skills and insights among therapists than building further skills among young people. The challenge is to find the communicative tools and skills that can facilitate communicative coping related to the digital.

Finally, health authorities are called on to make online mental health services available 24/7:

“It should be 24-hour because, mainly, from my perspective, people’s mental health is worse at night and early in the morning. Because that’s when they’re laid in bed, they can’t sleep, and ... they’ve got nothing else to do so the head’s thinking.”²⁰⁴

Advice to parents, caregivers, educators and other relevant professionals

Young people want to be able to be curious online and feel safe to make mistakes and learn from them. The participants offer some advice to adults so they can bridge the generational gap between young people and adults. An overarching recommendation is that adults need to build trust by overcoming their ‘blind spot’ regarding the opportunities and challenges in young people’s everyday life online. Many participants said they wish they could discuss how social media affects their daily life with adults. To build trust and express curiosity about young people’s digital lives, adults should ask direct and specific questions about online activities, and convey a genuine interest:

“What I think is that they should not ‘beat around the bush’. Ask directly. I wish that an adult had done that with me.”²⁰⁵

Bearing in mind our earlier discussion of learning digital skills through experience, young people want adults to recognise and accept that mistakes are made and show eagerness in helping them handle difficult situations online by drawing on their lived experiences. By trying to empathise, the adults can learn, too, as well as avoiding blaming young people when they make a mistake:

“Don’t victim [blame] and I think, first and foremost, believe! ... If you know someone is vulnerable, definitely try your best to keep them safe. And if they do make mistakes, be sympathetic rather than blame them because they’re already blaming themselves.”²⁰⁶

“It is more helpful to support, and just listen instead of explaining again and again ... how you have been involved in this situation ... because I know that I was stupid.”²⁰⁷

²⁰² Girl, 16, PTSD, self-harm, online sexual abuse, online self-harm content (NF12).

²⁰³ Young woman, 18, depression, self-harm, suicide ideation, online self-harm content (NF11).

²⁰⁴ Young woman, 18, probable anxiety disorder, suicidal thoughts (UKF14).

²⁰⁵ Young woman, 18, depression, anxiety, PTSD, cyberbullying, online sexual abuse (NF15).

²⁰⁶ Girl, 17, autism spectrum disorder, sexual abuse, PTSD (UKF04).



Importantly, several participants emphasised how helpful it would be to get concrete information about different apps, and how to be more critical of information sources online. In addition, they want more advice from older siblings, friends or online services, for example regarding the unwanted sharing of images or how to handle contacts they do not want or are afraid of. At school, when they talk about sexual abuse online, one young person recommended the teachers explain that boys can also be exploited:

“We could have more information at school. They only talked about the girls as possible victims. Nothing about boys. Then, boys will then never disclose.”²⁰⁸

Another highlighted how helpful it was to know about an online police patrol:

“I remember I learned at school about an online police patrol. You could ask for help online. That is so much easier. ... In 7th grade I had no friends, and I was spending a lot of time online. A person shared some pictures of me against my will ... and he pressured me to send more pictures and if not, he should send the pictures to people at school. ... I became stressed, but I remember that I had heard about the online police patrol and I told them what had happened, all the details, and I got tips to block the person. I did what they said, and I never heard from him again. But I think I had never got the idea by myself or dared to do anything.”²⁰⁹

Interestingly, young people also call for less leniency from adults. For example, they think it important that if someone sends a picture of themselves to others, even though they did not post it in the first place, they should be punished. They also want parents and other adults to regulate, and help young people regulate, their online activities:

“I don’t think that young children should be on social media whatsoever. I think that they should have apps specified for the younger generation, but then you find issues with that, because predators could get on there and stuff like that ... 10-year-olds are managing to get Instagram and then they’re seeing, what, 20-year-olds? That shouldn’t be a thing.”²¹⁰

“Watch what your kids are doing. Maybe not so that you monitor them and that they feel monitored, but more maybe hear a little more how they feel, and maybe who they are talking to. Maybe in a slightly calm and decent respectful way. So that you may have an open relationship with your children. And so that you may be on the platform. Just keep an eye on what’s going on there.”²¹¹

For many of the participants, these concerns were rooted in their own experiences of being exposed to challenging content and behaviour online:

“Kids shouldn’t have phones. I’m a kid, I had a phone. As a kid, I experienced life with a phone, I experienced times where you’d get into so much stuff with a phone, you can get into beef [drama].”²¹²

²⁰⁷ Girl, 16, PTSD, online sexual abuse (NF14).

²⁰⁸ Girl, 16, PTSD, self-harm, online sexual abuse, online self-harm content (NF12).

²⁰⁹ Girl, 17, eating disorder, self-harm, online sexual abuse, online self-harm content (NF07).

²¹⁰ Girl, 17, self-harm, sexual abuse, probable anxiety and depressive disorders (UKF05).

²¹¹ Young woman, 19, online and offline sexual abuse and unwanted sharing of nude pictures (NF27).

²¹² Young man, 18, probable anxiety disorder (UKM06).



Advice to tech companies

The participants offered advice regarding how tech companies can improve the digital lives of young people. Although their demands are various, one crucial desire is for more autonomy on social media platforms: *“Just let you organise what you want more, like give you categories that you can click on”*.²¹³ Also, increase user autonomy by improving settings such as the ‘like’ button:

*“Remove the ‘like’ buttons. Remove the possibility to write comments. I don’t need to see it.”*²¹⁴

*“I feel like they could change it. They don’t need a ‘like’ button. You don’t need to see how many followers you’ve got. And that’s what young children, young people focus on when they’re posting stuff on social media, is how many followers have I got? How many ‘likes’ have I got? When realistically, that doesn’t matter.”*²¹⁵

In general, participants would encourage tech companies to change the settings on various platforms to make it easier to take charge over online activities. One example is to make it easier to organise private profiles on digital platforms:

*“The settings on Facebook and Instagram make it easier to choose if your profile should be private, not have to change the password.”*²¹⁶

Another group of comments focused on provision to get help from digital providers when something goes wrong. One participant explained that it is easy to just give up if the procedures to report people on platforms are too complicated:

*“They [tech companies] do not make it easy to report users. Because they have ... it is not enough that you show what happened, they must have several criteria fulfilled before they delete a user or include them on a list for reported users. So, just to show them that he asked me for nudes and so, which is one of the categories you can report, is not enough for them to do something about it. Then, they ask for more and more and more and more until you just give up.”*²¹⁷

When something goes wrong enough to be reported to the platform, a 17-year-old boy spoke for many young people who regard the companies as problematically unresponsive:

*“Platforms, you know, people that work for Snapchat, for Instagram, for Facebook, they don’t like instantly solve an issue. They’ll leave it for ages and the system of reporting an issue is just not great. ... [They should have someone] ready to get back to someone in the first five minutes. I’d say first five minutes, pushing it, ten minutes, but I think it would be better five. I think like having that thing where you report something, and it says like we’ll get a person to get back to you in the next 24 hours. 24 hours! Anyone could do anything in 24 hours. And the person reporting something could, it could get worse for them. They could get into, there could be a sign of distress, feeling isolated, maybe even feeling suicidal sometimes.”*²¹⁸

²¹³ Girl, 16, low self-esteem, anxiety, possible undisclosed eating disorder or self-harm (UKF19)

²¹⁴ Young man, 19, anxiety, depression, online sexual abuse, cyberbullying (NM02).

²¹⁵ Girl, 17, self-harm, sexual abuse, probable anxiety and depressive disorders (UKF05).

²¹⁶ Girl, 17, eating disorder, self-harm, suicide ideation, online self-harm content (NF02).

²¹⁷ Girl, 16, PTSD, self-harm, online sexual abuse, online self-harm content (NF12).

²¹⁸ Boy, 17, no disclosed mental health disorder (UKM02).



As we have seen, this boy is sensitive to others knowing he has a problem and ignoring him, whether it is a friend or the platform. His very ability to call for help, and his knowledge that they know how he feels, combines to make it all the worse when no help comes. Plenty of other complaints are forthcoming:

*“Plenty of times I’ve blocked people, I’ve reported people. But nothing comes of it.”*²¹⁹

*“There’s also a large problem with platforms like TikTok and Instagram censoring the wrong things. Because if you report a comment that’s misogynistic, it comes back saying, this does not breach the terms of service, but if you post a picture in a bikini and someone reports it, it gets taken down immediately. And I think some of the problems are due to not being prioritised. I’ve been reporting very racist and xenophobic comments ever since lockdown began based on preconceptions about where COVID came from, and the platforms don’t seem to care.”*²²⁰

Further, the young people wanted the tech companies to give more information about their collection of data, what happened to their pictures and how the algorithms worked. They wanted it to be easier to block content and to detect ‘fake news’. They highlighted that it was a good thing that it was possible on some apps to block an IP address so that all accounts for the same person were blocked at the same time. Moving forward in an ever-more complicated technical world, technical skills education is still crucial, but it needs to come in different forms to accommodate for the increasingly complex digital ecology.

Young people were aware that tech companies may lack the incentive to respond to their concerns, and that government regulation may be required to make them:

*“I think the only thing that will make. ... It might sound quite silly but new laws about social media, like if it gets too out of hand, maybe if suicide rates go up due to a certain platform, they should just ban it.”*²²¹

Advice from young people to other young people

The participants’ main advice to other young people is to take control and act skilfully to manage their own digital lives. Their advice is strongly grounded in their lived experiences of mental health difficulties, and they advise others to reflect on those aspects of digital engagement that they find stressful and work systematically to cope with them, while also exploring and enjoying digital opportunities. Notwithstanding the barriers to disclosure, young people urge each other to find help:

*“Just tell someone. Even if it feels like it is your own fault. It is much better if you tell someone.”*²²²

*“If something bad happens – go to the police and get it stopped. No one will judge you. If you have shitty parents or friends maybe, but then you need to find new friends. ‘Cause no good friend or good person would judge you for this. No psychologist would judge you, no police person or whatever would shame you for this.”*²²³

²¹⁹ Young woman, 18, self-harm, probable anxiety and depressive disorders (UKF06).

²²⁰ Girl, 17, autism spectrum disorder, sexual abuse, PTSD (UKF04).

²²¹ Girl, 16, low self-esteem, anxiety, possible undisclosed eating disorder or self-harm (UKF19).

²²² Girl, 16, PTSD, self-harm, online sexual abuse, online self-harm content (NF12).

²²³ Young man, 19, anxiety, depression, online sexual abuse, cyberbullying (NM02).



But perhaps recognising that the barriers to disclosure can be considerable, they also offer advice about managing the technology itself, drawing on the common conception of digital skills as technical and operational. As we have seen, young people are keen to learn the specifics of the different apps they use and are equally keen to pass on what they have learned to others: “*You just need to learn to use it right. ... I turn my comments off on TikTok.*”²²⁴ Another young woman suggests: “*if it happens to you, just block them. If someone’s posting pictures of you, report it. It will get taken down*”.²²⁵ They also keep close watch over new features that can help: “*You have got a new function that helps you to hide ‘likes’ ... I do that all the time.*”²²⁶ Some of this advice reflects their critical grasp of platform affordances, such as the algorithmic management of their content feed:

*“TikTok has a nice function – there are three dots, and you can click ‘Not interested’. It does something with the algorithm – if you keep doing that then the videos stop. You can take some control over some posts.”*²²⁷

They have also learned that platform moderation appears to concentrate on videos or photos rather than the comments beneath them. As may be seen, learning to ‘read’ the digital environment can resemble the task of a detective:

*“I think – look at the comments and look at the account and see if that’s relatable. Those accounts, if you cannot relate them into your life, let’s say, like, the way my parents live, then I don’t think it’s really for me.”*²²⁸

Even advice phrased in technical terms (check who you follow, mute terms, check the comments, etc.) is generally and necessarily embedded in advice that is more personal – about knowing yourself and thereby helping yourself to survive (and thrive) in a complex socio-technical context:

*“I think you just really have to know what you want. ... We just have to be better at taking care of ourselves and knowing what to follow and not. I think it can be a very big help. But that’s easier said than done.”*²²⁹

*“If you definitely struggle with some stuff or, for example, an eating disorder or something, you might want to just mute the word. In that way, it won’t be showing up on your feed and you won’t see the word. And that way you’re actively helping yourself and your online world will get all positive.”*²³⁰

These illustrate one of our key findings, that technical skills are heavily interdependent not only on the other dimensions of digital skills (informational, communicational and creative) but also on social and emotional skills. As this 17-year-old girl continues,

“First, come to terms with what you’re comfortable with and you need to set boundaries really. Like if you see something you don’t like, maybe it’s worth going into your settings and putting in, you can block out words. ... So, having your boundaries so that you don’t

²²⁴ Girl, 17, probable anxiety disorder (UKF12).

²²⁵ Young woman, 19, bullying and probable depressive disorder (UKF13).

²²⁶ Young woman, 19, self-harm, suicidal ideation, online sexual abuse (NF10).

²²⁷ Young man, 19, anxiety, depression, online sexual abuse, cyberbullying (NM02).

²²⁸ Girl, 14, history of a subclinical eating disorder and depressed mood (UKF15).

²²⁹ Young woman, 19, online and offline sexual abuse and unwanted sharing of nude pictures (NF27).

²³⁰ Girl, 17, probable depressive disorder, panic episodes and possible self-harm, following a period of bullying (UKF16).



see something that you know will hurt you ... go out of your way to try and make it safe for yourself as much as you can.”

All these skills now develop in tandem through adolescence, making digital skills impossible to separate from life skills. This is not to say, however, that they are always in harmony: for example, a young person may have the digital skills to protect themselves but lack the cognitive skills to understand the risks or lack the relational skills to find alternative ways of coping, hence they may find themselves locked into harmful online interactions even though, in principle, they have the means to escape them. This is especially significant for those with mental health difficulties, because their digital experiences can be intense and the problems they face can be extreme.

Much of their advice to each other concerns minimising the negatives of digital media through socio-technical strategies. To create a safer environment online, an 18-year-old young woman suggests:

“I deleted everyone that was making me feel rubbish. Deleted all the negative stuff. I just followed people that I want to follow: my friends, my family, and influencers that actually influence me and inspire me.”²³¹

In this way, according to this young woman, you can try to understand how your life is affected by exposure to other people and interactions on social media. Furthermore, some participants explained that they try to ‘clean’ their own social media world by deleting upsetting content:

“I try to keep my Instagram profile clean ... I have deleted people who post ... if they posted pictures that I easily compared myself with, and I noticed that they were perfect and non realistic. Then I noticed that it is not good for me.”²³²

Along these lines, some participants recommend young people to be careful when they add new people:

“Be careful! ... It is easy to be trapped, because you think everyone has good intentions. But, especially online, there are so many that want to ... get money from you, do something against you.”²³³

“Stay away from people online that you haven’t met. I understand people are on Tinder and stuff, but they need to check Instagram and see if you at least have some common friends or see that they are active – check things out. Don’t just start talking and send them pictures. If the person won’t show themselves on Facetime, then there is a reason for it.”²³⁴

And again, reflecting their hard-won digital skills, they recommended not believing everything you see on the screen:

“Those who post it have very unrealistic beauty standards ... people who are very thin, big tits and ass ... who have clearly had surgery to get it.”²³⁵

²³¹ Young woman, 18, probable anxiety disorder, suicidal thoughts (UKF14).

²³² Young woman, 18, depression, self-harm, suicide ideation, online self-harm content (NF11).

²³³ Girl, 16, PTSD, self-harm, online sexual abuse, online self-harm content (NF12).

²³⁴ Young man, 19, anxiety, depression, online sexual abuse, cyberbullying (NM02).

²³⁵ Girl, 14, PTSD, online sexual abuse (NF03).



Last but not least, and without underplaying the negatives but recognising that the digital world is here to stay, young people urge each other to find the opportunities for positive experiences:

“I think that there’s always going to be negative parts. Obviously, we can reduce it, but it’s people [who] put their accounts, so they have their opinion, they can post what they want. ... If you want a positive thing out of social media, then you’re going to have to be positive yourself and have a positive mindset. And, if you want social media to be positive, then you need to break down the barriers and try to resolve negative parts.”²³⁶

While much of their advice to each other is phrased in individual terms, young people also recognise that, collectively, they have agency as a youth cohort, peer group or online community. This includes the potential to share both digital skills and also a positive approach:

“[When I] open Instagram and I’ll see a little cute message or thing to keep you going, I’ll share it with friends, for example. To make their day and whatever.”²³⁷

Thus, as indicated by this participant, by sharing positive content with friends and family, social media can be a place to take care of both yourself and others and connect with an affirming community.

Overall, the advice from the young people themselves reflects how digital skills are interwoven with their cognitive and relational skills. We have discussed earlier how young people appear to take on the responsibility for what happens to them online, even if this is not easy and user actions don’t always work. But while they advise each other to do all they can, as individuals, this advice should also be read in the context of their advice to professionals, parents and caregivers and tech companies – recall their advice above about improving moderation and reporting systems, for example. Taking on the burden of individual responsibility is seen as a realistic and practical response to the situation that young people find themselves in, but this does not mean that they consider it fair or right.

7. Conclusions and recommendations

The arguments, evidence and findings in this report should be considered in relation to our four original aims (see Section 3): (1) understand how digital skills can improve or undermine at-risk young people’s wellbeing; (2) explain the role of digital skills in fostering coping and resilience; (3) learn whether young people at risk can benefit from digital skills equally, or if different groups need different policy and practice responses; and finally (4) generate methodological innovation for the study of the digital engagement of young people ‘at risk’ or who find themselves in a risky situation (addressed in Section 5 on methods).

To achieve our aims, we asked three research questions:

1. What is the relevance of different dimensions of digital skills in the lives of young people experiencing mental health difficulties?
2. How do young people experience the role of digital skills in aiding or worsening their mental health difficulties, including their capacity to cope?
3. What recommendations can be drawn from young people’s experiences that may inform mental health professionals, schools, companies, regulators and the public to support young people’s digital lives?

²³⁶ Young woman, 18, probable anxiety disorder, suicidal thoughts (UKF14).

²³⁷ Girl, 17, probable depressive disorder, panic episodes and possible self-harm, following a period of bullying (UKF16).

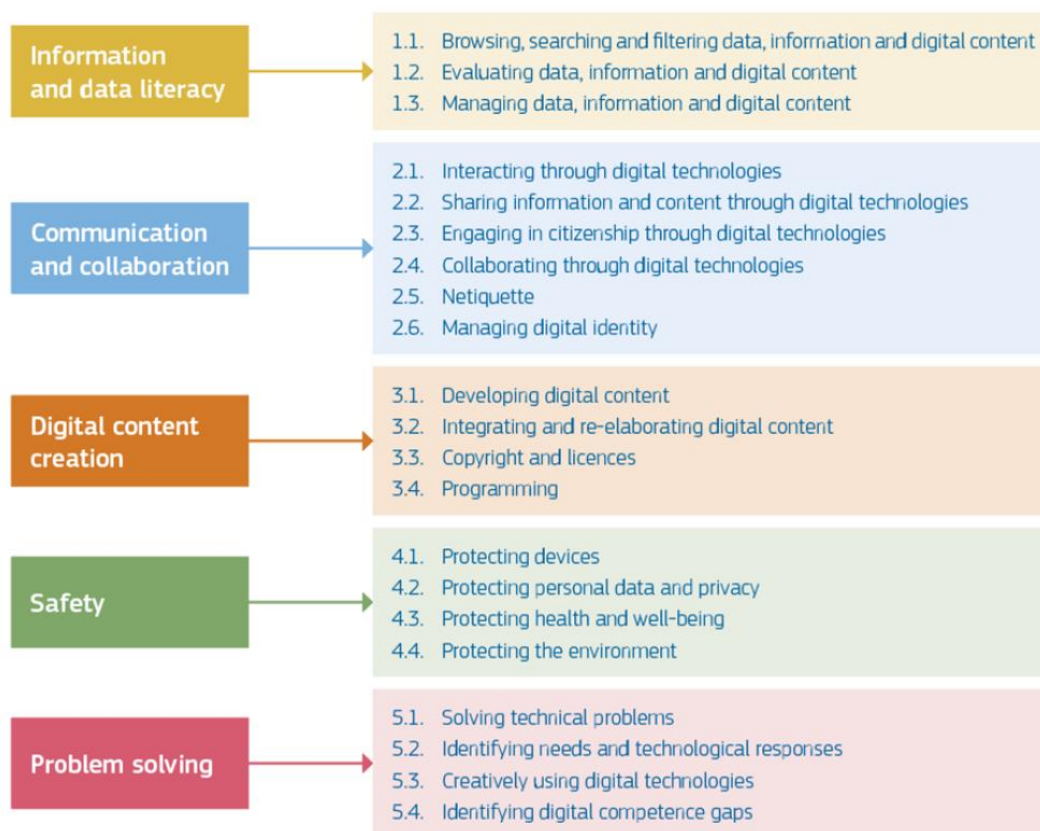


The research findings have been analysed in ways that brought out young people’s experiences and perspectives, organised into four main topics: (1) How young people with mental health difficulties *define* and *reflect* on digital skills; (2) how they *learn* digital skills; (3) their experiences *engaging* with risky-by-design affordances in the digital environment; and (4) how they *cope* with these experiences, including the barriers to reporting problems to adults who could help. The conclusions to each of these four topics contribute especially to the first two research questions. They also contribute to addressing the third research question, complemented by the insights and advice to stakeholders explicitly offered by the young people themselves, based on their lived experience of difficulties with mental health in a digital world.

7.1. Implications for digital skills: scope, definition and relevance

The analytic focus of this report has been to critically examine the relevance and specific roles played by digital skills in the intersections among young people, mental health and digital engagement (see Figure 2). Here we draw together our findings relating to research questions 1 and 2, leaving to the next section the comparison between Norway and the UK as potentially contrasting cultures of childhood.

Figure 5: The DigComp conceptual reference model (Source: Vuorikari et al., 2022: 4)



The ySKILLS project has examined youth digital skills within an overarching and generalisable model (Figures 1 and 4). Its substantial achievement is reliably to measure the different dimensions of digital skills in ways that then predict wellbeing outcomes for children and young people (d’Haenens, 2022; d’Haenens and Joris, 2021; Donoso et al., 2020; Helsper et al., 2021; Mascheroni et al., 2020). The approach taken to statistical model building reflects an individualised conception of the dimensions of skills that each individual may gain and use, depending on their circumstances, as they extend and deepen their digital engagement (Haddon et al., 2020). In this regard, ySKILLS is consistent with the European Commission’s Digital



Competence Framework for citizens, DigComp 2.2 (Vuorikari et al., 2022), designed to apply to everyone (see Figure 5), although most often discussed in relation to adults, especially in relation to employment.²³⁸

Such a generalised approach does not capture the specificity or nuance of the digital skills gained by certain groups, such as those with lived experience of mental health difficulties. Nor does an individualised approach sufficiently encompass collective forms of knowledge and practice that characterise certain communities, again, including those with lived experience of mental health difficulties. This is not to say that the ySKILLS conceptual model of digital skills (yDSI) does not apply because, as this report has shown, all four of the main dimensions of the model are important for young people with mental health difficulties, both separately and in combination. As this report has shown, the young people interviewed were in many ways very skilled internet users with a range of coping strategies at their disposal.

However, the findings qualify the significance of these dimensions, notably by highlighting the self-protective role of technical skills, the motivation to search for highly specialised or niche information relating to mental health, and the supportive but also destructive potential of communicative skills when (mis)used in fragile peer communities or, at worst, for grooming by an abuser. It could be argued that in some respects the young people's skills go beyond the technical, informational, communication and creation, as measured in the yDSI indicator through digital skills and knowledge items. One important reason for this is that digital skills are thoroughly entwined with and interdependent on the psychosocial life skills that young people are simultaneously developing, including through their lived experience of mental health difficulties.

The findings reveal the intense interest that young people with mental health difficulties devote to gaining and sharing digital skills given their vulnerabilities, and also, the depth of their need for support. This directs their attention to a close analysis of the affordances of the digital products and services they use. But, as we have shown, the complexity and opacity of these affordances is at times overwhelming, such that even their most sophisticated digital skills can be insufficient. The case of algorithms that amplify triggering content illustrates this, because although most of the young people we interviewed were aware of and knowledgeable about these algorithms, they were nonetheless not always able to manage them to avoid being upset or finding themselves stuck in an ever-more negative digital space. For these young people, therefore, the critical dimension of digital skills may be particularly important.

So, while technical, informational, communicative and creative skills remain the overarching dimensions of skills, we have found that, for young people with mental health difficulties, it is more meaningful to describe their digital skills in relational terms rather than as significant in and of themselves, abstracted from the context. What matters to them, they told us, are how these skills are related to being able to avoid triggers, game algorithms, identify pathways to extreme content, sustain peer support, curate content feed, find validation, unmask a potential abuser, determine reliable advice, recognise safe spaces, deal with ambiguity, operate self-protective practices and support others. These, and other skills, are important for young people's everyday digital lives. In the face of negative experiences, they also contribute to valued coping strategies enacted both online and offline. Here, too, we identified not only young people's strengths but also the barriers they encounter – both digital (in the form of affordances and, behind these, the risky-by-design practices and policies of the platforms) and also human (in the form of

²³⁸ While the labels differ somewhat, it is not hard to map the ySKILLS model onto that of DigComp. For example, ySKILLS' technical and operational skills are akin to the problem-solving skills of DigComp; both include content creation, communication skills and information skills; DigComp adds safety skills, itself a mix of protecting devices, health and the environment. The most recent iteration of the Framework has added more examples of attitudes, skills and knowledge that fall under each form of competence.



problematic peers or adults online, and the social norms that impede disclosure and hence, a pathway to help). Narratives of hope and recovery may also help to reduce the barriers to disclosure.

As we have shown throughout the report, young people’s digital skills – and the norms and practices that limit them – are not only individual but also collective. They are developed as part of an evolving collaborative peer culture among young people including, in interesting ways, among a subculture of those facing mental health difficulties and other risk-related problems – our participants described how they share insights, tips and tactics with online peers or niche online communities in ways that offer support and facilitate coping. On the other hand, these communities can reinforce mental health difficulties. They could also be hard to leave due to social pressure and an understanding of betrayal of communities and groups – a distinct set of communication skills. Further, young people’s digital skills are shaped by the larger context of adult social norms – family expectations, educational cultures, clinical and therapeutic professional practices, commercial policies of digital providers and platforms, and wider cultures of childhood and wellbeing. Yet, even though skills are socially formed and influenced, as, of course, are risk experiences and mental health difficulties, the young people perceive encountering digital risks as a lonely process – and too few appear to disclose these experiences or receive adequate help. Thus, many expressed how they needed to self-regulate or rely on their own resources when engaging with the world – digital and beyond. This included those who were in established therapeutic situations.

A substantial focus of the report has concerned the specific skills needed for those with mental health difficulties – of coping and disclosure. In the health domain, including in relation to mental health, the commonly observed gap between knowledge and practice has long been a cause of concern, over and above a problem of definition and measurement of digital skills. Our findings reveal a range of reasons for this gap among a specific ‘vulnerable’ population. Acting against your knowledge of what’s safe or sensible (e.g., taking risks or daring yourself or ‘playing with fire’ or sensation-seeking) may not reflect a lack of skill or an irrational response but rather, a different or extended set of digital skills and purposes. We attend to the forms of cultural and self-knowledge as well as digital knowledge involved in accounts of thrill-seeking; rites of passage; ‘manipulating’ the digital. Furthermore, the development of digital skills among young people takes place in the context of a complex developmental period, characterised by exploration, risk-taking and vulnerability (Stänicke, 2019; Thapar et al., 2015). Perhaps the seemingly uncritical use of digital skills makes sense for young people in certain periods of their life, putting those with mental health difficulties at greater risk. As researchers and practitioners, we need to be aware of these developmental challenges when we conceptualise these digital skills.

Considering the relationship between digital engagement and mental health we observed how young people with mental health difficulties actively engage with the digital world at times with sophisticated strategies of utilising affordances, and even go beyond what was envisioned by design. The curation of multiple audiences on various platforms, and the sometimes-seamless organisation of cross-platform communication, are examples of this. At the same time, they are critical of the algorithmic logic and spiralling effect it has not only on their content feed and online interactions but also in triggering negative experiences or worsening their mental health. These arise in response to the close interdependence of digital design, platform business models and everyday social interaction among young people with mental health difficulties. These are not unique to this group of young people but are intensely felt by and of considerable concern to them, thereby providing insights into the digital skills that make a difference within their lived experience.

Rather, and importantly, many of our participants described how they used active strategies of avoidance and developing digital skills designed to ensure that they kept their experiences secret

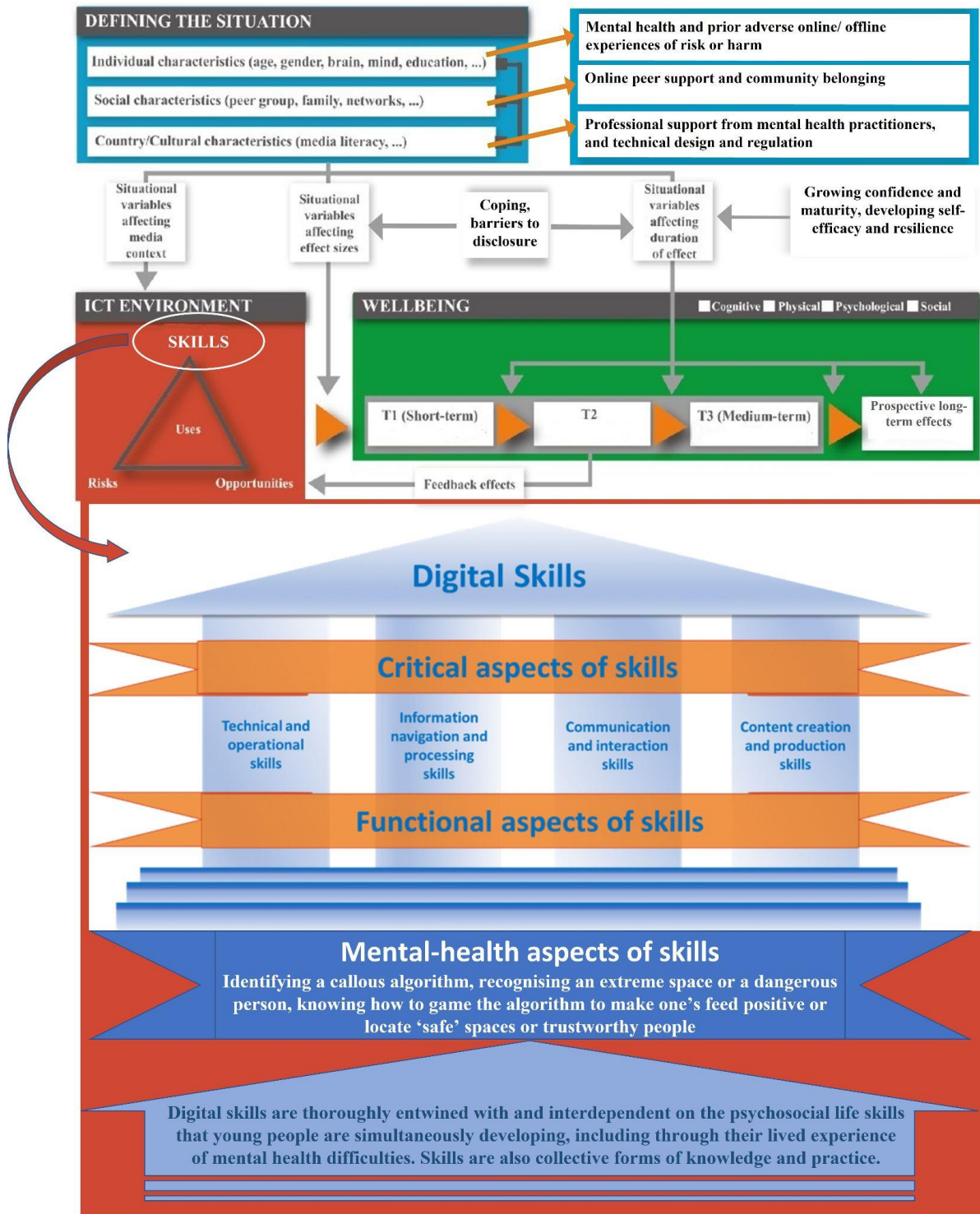


from parents and caregivers, teachers, therapists and even peers. This contributed to a feeling of shame and guilt for having ended up in risky situations they could not handle, or that they did not want to be a bother. They also feared adults would not understand, widely regarding them as unrealistic or out of touch when it came to help-seeking strategies, failing to understand their digital commitments, however risky. Many also described how they were afraid of the consequences. They found the line between being a victim and potentially having done something wrong themselves unrealistic, criticising the somewhat confusing information provided by stakeholders, such as the police, and other authorities. Although at times they seemed to ‘do nothing’ about problems encountered online, we suggest that labelling their coping responses as ‘passive’ is inappropriate: as we have shown, these problems are accorded intense attention, consideration and coping resources, whether or not there is much to show for it or the problem is effectively resolved; a feeling of helplessness is not acceptance.

Thus, mastering digital skills is not sufficient to understand ‘at-risk’ behaviours and mental health outcomes. We observe that given the challenges these young people face, they do not always manage to gain the needed skills or put them into practice. This is especially the case when mental health difficulties impact on their functioning or perhaps drive them down and accelerate problematic pathways, something that can contribute to the feeling of being very much on their own. Importantly, through digital engagement young people can explore many topics, interests, social norms, roles and borders between self and others. During adolescence, this exploration is important for developing agency, autonomy and self-identity. Whether the young person struggles with mental health difficulties or not, the developmental issue of autonomy and testing of borders can, in a digital arena with ‘no limits’, hinder sufficient psychosocial support and guidance from their caregivers and other adults (Keyes, 2005; Stänicke, 2022). The findings from the present study indicate that young people with mental health difficulties are at risk of exploring problematic pathways online, even though they may possess sophisticated technical digital skills that should, in theory, be protective. Perhaps the problematic use of digital media documented here indicates that young people are not purely rational actors when they engage online but are also driven by impulses and mental health needs that should be accounted for when we conceptualise what digital skills are (Johanssen, 2019). The digital engagement may serve different functions and cover a need to belong, to explore and express self, and to share problems, as well as for support (Stänicke, 2022). Consequently, we conclude that these young people face clear barriers to developing digital skills and resilience (see Figure 6).



Figure 6: Expanding the skills in the ySKILLS model for mental health



In line with these findings, we propose expanding the ySKILLS model of digital skills to reflect the experiences of young people with mental health difficulties (Figure 6). We have refined the factors defining the situation by adding mental health-relevant examples at the individual, social and country levels. We added a number of situational variables related to coping, disclosure, self-efficacy and resilience that have the potential to affect both the effect sizes and the duration of the effects. Finally, we elaborated on the aspects of digital skills specific to mental health and pointed to the relational nature of digital skills and their interdependence on young people's psychosocial life skills.



We observe that young people with mental health difficulties both possess digital skills and have been educated in technical skills at school. But these skills do not necessarily translate into an ability to protect themselves from entering harmful social media sites or following provocative content online. Furthermore, many of the participants took on great responsibility to protect themselves and felt ashamed when they made mistakes. On occasion young people with mental health difficulties use technical skills in a way that drives them down problematic pathways, exacerbating their prior vulnerabilities without enjoying the positive aspects of digital media. As mentioned, an intersectional perspective acknowledges that different groups need different approaches. Perhaps the dominant focus of society (policy makers, educators, parents and caregivers) on technical skills is insufficient to enable young people with mental health difficulties to protect themselves from harmful online downward spirals, let alone to thrive online.

7.2. The cultural context of Norway and the UK

The third aim of this project was to learn whether young people at risk can benefit from digital skills equally, or if different groups need different policy and practice responses. This includes examining the potential differences both between young people with mental health difficulties versus the general population, and among young people facing different mental health challenges and life experiences. In addition, we also wanted to consider the different national and cultural contexts as a potential factor that might influence if and how young people can benefit from different types of digital skills, as referred to in research question 2.

As elaborated at the outset of this report, while Norway and the UK have several commonalities as Western European countries, there are also differences. We could already see from the 2010 EU Kids Online survey that in both countries, young people receive above-average levels of active (enabling) parental mediation, although UK parents also practise more restrictive mediation (Duerager & Livingstone, 2012). In Norway, 11- to 16-year-olds enjoy higher levels of digital skills than in the UK, and, probably because of their greater skills and fewer restrictions, also more online opportunities (Sonck & de Haan, 2013). Nonetheless, defining resilience as not being upset when encountering online risks, the survey also reported relatively high levels of resilience among both UK and Norwegian young people (83% versus 79% respectively).²³⁹

Importantly, country size, language, school and media regulatory systems as well as the structure of the mental healthcare systems differ substantially. Comparative research on children's digital lives have also shown – as examples – how both children's actual use of the digital and the childrearing practices applied by parents and caregivers differ. As demonstrated by Helsper et al. (2013), and explained in Section 4, the UK and Norway belong to different country clusters regarding children's online experiences: the UK was dubbed 'protected by restrictions' while Norway was included in the 'supported risky explorers' cluster. Indeed, this was part of the original rationale for why these countries were chosen for this particular ySKILLS study, and we had previously found underlying contrasting cultures of childhood (Staksrud & Livingstone, 2009), and speculated subsequently that there could be a different balance struck in the two countries between child agency (or rights) and child protection (Smahel et al., 2020; Staksrud et al., 2020).

In addition, our respondents were recruited from different contexts. However, when considering the findings among young people with mental health difficulties in Norway and the UK, it is the similarities that are most striking. While the social conditions and parental mediation strategies vary on the national and social levels, as do the different mental health difficulties they face, we find how experiences, insights and advice are similar:

²³⁹ We refer to the first (2010) rather than the more recent (2020) EU Kids Online survey for these comparisons, as the UK was not included in the latter.



- Young people with mental health difficulties face intense risky situations online with problematic real-world consequences. While they are often digitally skilled, reflexive and supported by peers, they do not feel that parents, caregivers, educators or clinical professionals understand or respond to their digital problems sensitively, sensibly or effectively.
- Young people with mental health difficulties tend to take great individual responsibility to cope, often privately, with their digital lives, both in Norway and the UK. They put considerable effort into critically analysing the affordances of (global) digital products and services to develop their own specialised digital skills to pursue their interests, mitigate risk and seek support and help.
- Current efforts by public and commercial actors to support young people’s digital skills and agency and address their needs appear insufficient, even counterproductive, and the vulnerable young people believe that the digital environment will help them sufficiently and meet their diverse and complex needs.

Perhaps these findings of similarities are not surprising. Societies’, and in particular, national governments’ struggles to understand and manage the balancing of children’s rights, while regulating and limiting the risk of harm in online environments, has been on the agenda for almost three decades (Staksrud, 2016). At the same time, as also shown in this research, the social media platforms, services and digital affordances are global in nature. Our informants mostly have experiences with the same services, algorithmic logic and, consequently, very similar issues. While life trajectories and level of trauma are unique for each case, and while cultures and contexts also matter, there are many similarities when it comes to the complexities of manoeuvring skills that include and transcend the technical, informational, communicational and creative in ways that make a difference in young people’s lives. From an intersectional perspective, the striking similarities indicate that young people with mental health difficulties in both Norway and the UK are facing similar challenges and opportunities, despite differences in education, parenting and culture. This is significant for the design of policy and interventions within and across countries.

7.3. Evidence-based calls for stakeholder actions to support vulnerable young people

Our third research question asked about the evidence-based recommendations for therapists, mental health professionals, schools, companies, regulators and the public that could be drawn from the findings in support of young people with mental health difficulties. From the outset, we recognise that certain features of digital design have been linked to worsened mental health outcomes, and yet digital technologies have also given children and young people historically unprecedented access to health information, social support groups and self-diagnostic tools, among other opportunities. We also sought to inform the design of digital spaces and resources that could enable professionals to harness digital opportunities to mitigate negative outcomes and promote wellbeing (Hollis et al., 2017).

Online help can take multiple forms, including recognition and validation of young people’s problems, peer support or professional advice (Dubicka & Theodosiou, 2020). Yet, problematically, many clinicians report being insufficiently knowledgeable about and supported in addressing online problems (Lau-Zhu et al., 2022). And many young people report that relying on digital technologies for mental health support can disadvantage those with less access, connectivity or digital skills (Haddon, et al., 2020; Rost et al., 2020). Since other stakeholders also have a notable role to play, and duty of care to discharge, in relation to young people with mental health difficulties, building on the insights, experiences and reflective advice from the young people interviewed, we now summarise our main recommendations for key stakeholder groups.



Clinicians, therapists, safeguarding and mental health practitioners can no longer maintain the position that the digital world is a novelty or passing trend. They must engage with the richly diverse and embedded digital lives of the young people accessing their service, and proactively address the potential for both risks and opportunities. Few young people trusted their therapist to understand or recognise the importance of their digital lives. Direct questions about at-risk behaviour showing empathy, understanding and genuine interest can reduce shame and lower the threshold for disclosure and sharing. Relatable, hopeful narratives of how they can be helped may also assist disclosure. This will require a shift in empathy, training and digital skills for practitioners, as well as changes to their routine practices of youth consultation and support, to ensure that they inquire into, reflect on and advocate therapeutic strategies regarding young people's digital as well as in-person lives. Models of recovery should also include digital activities alongside offline developments.

Educators offer a valuable opportunity for young people to disclose the difficulties of their digital lives, and there is a need for schools to create such opportunities. They should also take a multidimensional approach to digital skills, including and going beyond simple technical advice and safety messaging, and offer meaningful, relatable support for their students. For example, education on algorithm literacy is now essential, recognising that this may be vital for young people's wellbeing and safety. A trauma-informed approach (Hanson & Lang, 2016) is needed to understand the specific needs of at-risk and vulnerable young people, and to educate and support them. This may facilitate greater learning and recovery, promote resilience and help-seeking, respond to online challenging behaviours from peers, and overcome digital and social exclusion.

Public health messaging for children and young people, parents and caregivers and the general public should move beyond simplistic safety advice and offer support on managing interpersonal stress and trauma. It should recognise the diverse pressures on young people in both their in-person and digital lives, ease the process of sharing and reporting online problems without shame, and avoid blaming them for digitally mediated difficulties. It should build on insights from children and young people regarding what works for them and the support they call for and offer them positive accounts of overcoming difficulties. In addition, supporting young people in recognising a traumatic experience, and how it may impact on them, is now a matter for wider public mental health policy.

Industry and tech companies should anticipate and empathise with the diversity of their users, providing, in particular, for those who are vulnerable and at-risk. They should proactively and preventatively work to reduce risk features, and deal speedily and effectively with perpetrators, using restorative approaches when these are themselves minors. They should also promote mental health literacy, especially how traumatic experiences may impact on a user, recognise and respond to harmful events and interactions, make privacy easier, facilitate reporting and take-down of problematic content, provide just-in-time support and safe spaces, and curb the operation of harmful algorithms that promote upsetting and extreme content for those with mental health difficulties in particular.

Government should provide expertise, training and above all, sufficient funding for mental health services so that children and young people can be confident of timely and appropriate therapy and support as needed for the difficulties they may encounter. Critically, government must ensure that mental health services engage with the digital lives of young people in the same way they would address the offline factors that contribute to their mental health needs. Government should also ensure that educators, law enforcement and other relevant professionals are able to support vulnerable and young people at risk in their digital lives. Third, they should consider regulation to curb the excessive risks posed to young people's safety and wellbeing by the actions of commercial providers of digital products and services, especially the large platforms.



7.4. Future research on mental health and youth digital skills

The relation between young people's mental health difficulties and their internet use is contested in the research literature, as noted at the outset of this report. We have, therefore, explored these issues in an open manner, specifically seeking to deepen understanding of the potentially mediating role of digital skills. The report has identified several important challenges for future research. In closing, we highlight four, all concerned with how digital skills are not only vital mediators of young people's wellbeing in a digital world, but also intertwined with social, cultural and professional cultures and contexts in ways that invite further analysis.

Understanding mental health in digital contexts. Although this report has deepened the present state of knowledge regarding the nature and importance of digital skills for the mental health of young people, there is much more to be researched regarding the risks and opportunities that the digital environment affords young people facing mental health difficulties. This includes examining whether digital support can compensate for the insufficiency of current (offline) professional mental health provision (Lennon, 2021), especially for young people who prefer the anonymity and confidentiality of online help services (Stoilova et al., 2019) or who are more self-reliant (Pretorius et al., 2019). The relation between digital skills, coping and resilience requires further exploration (Vissenburg et al., 2022), especially in circumstances where online risk of harm is traumatic. Research could usefully explore how the concept of posttraumatic growth (Henson et al., 2021) adds to the wider understanding of resilience, offering ways to promote digital resilience that include and go beyond recovery from adverse online experiences.

Youth digital cultures and mental health. While this research provided ample insights into the digital cultures that young people inhabit, our method of individual interviews could usefully be complemented by observational and ethnographic methods to capture the formation, dynamics and dissolution of these shared digital cultures, including their symbolic forms, social norms, problems and ethics. Linking this to digital skills, we note that in large part this report has treated digital skills as individual competences, while acknowledging that they are often developed collaboratively through shared practices and reflections. Questions remain, however, regarding the nature of the diverse online communities in which young people participate: some of these communities could also be described as digitally skilled (or otherwise), but an account of these collective skills is lacking. For example, what competencies do these communities need to develop to operate in digital spaces – to gather and share mental health knowledge, provide social support, pass on knowledge to new members, police community boundaries or deal with internal conflicts, and so on? In terms of interventions, might it be that skilling just the 'guru' in a community could be effective, leaving them thereafter to embed their new knowledge in their community?

Professional support for the mental health of young people. Although many of the participants in this study were involved in treatment, they never, or very seldom, shared their challenges regarding digital engagement with their therapists or other adults. A crucial finding from our study is that for many young people struggling with mental health difficulties, digital communication is the only accessible option to share their difficulties, gain emotional connection with others, enjoy opportunities to belong to supportive communities, and find forms of help and support. There is an urgent need to further our knowledge as to why children and young people do not talk with adults about their digital experiences, how to make it easier for them to ask for help, how to reach those in need of mental treatment, and how clinicians can detect and support those in need of help with risky online content. In this lies the need to find out if and how therapeutic procedures might be updated. We also need to understand the effect of digital help services from different stakeholders, if and how they could be integrated as part of treatment opportunities for children and young people, and the potential benefits and pitfalls related to this.



Understanding digital resilience. While the protection of young people online has been, rightly, a priority for policy and education, it is becoming clear that it cannot be promoted by the development of digital skills alone. The concept of resilience is thought to be of particular value in relation to young people’s digital lives, given that a dominant emphasis on safety could have unintended or paradoxical consequences while risky factors can sometimes offer advantages: crucially, child development theories assert that brief exposure to risks that the young person can cope with can promote resilience (Rutter, 2013). In addition, research with young people regarding their mental health has demonstrated that ‘being able to pick yourself up’ is an important value for them (Ipsos MORI, 2014). Resilience can occur at many levels, from resilient individuals to resilient families, communities and societies, meaning that it can be promoted in many ways (Hammond et al., 2022; Ungar, 2021). The reduction of online adverse experiences must always be the priority, but, as with offline adversity, further research is needed into building a systemic model of digital resilience that can empower as well as protect young people’s agency, competences and wellbeing in a holistic manner (Southwick et al., 2014).

Finally, having concluded this phase of our own multi- and interdisciplinary collaboration, we warmly recommend that researchers and the research community undertake further such collaborations, developing a joint research vocabulary and mutual understanding that can aid the collection of valuable data and deepen our insights into mental health vulnerability, digital skills and competence, and risks and opportunities in a digital age.

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References

- 5Rights (2021). *Pathways: How digital design puts children at risk*. July. 5Rights. <https://5rightsfoundation.com/uploads/Pathways-how-digital-design-puts-children-at-risk.pdf>
- American Academy of Child & Adolescent Psychiatry (2020). Screen time and children. Facts for Family No. 54. [www.aacap.org/AACAP/Families and Youth/Facts for Families/FFF-Guide/Children-And-Watching-TV-054.aspx](http://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/Children-And-Watching-TV-054.aspx)
- APA (American Psychiatric Association) (2000). *Diagnostic and statistical manual of mental disorders – Text revision (Vol. IV)*. APA.
- Athanasidou, K., Melegkovits, E., Andrie, E. K., Magoulas, C., Tzavara, C. K., Richardson, C., Greydanus, D., Tsolia, M., & Tsitsika, A. K. (2018). Cross-national aspects of cyberbullying victimization among 14–17-year-old adolescents across seven European countries. *BMC Public Health*, 18: 800. <https://doi.org/10.1186/s12889-018-5682-4>
- Augusti, E.-M., & Myhre, M. C. (2021). The barriers and facilitators to abuse disclosure and psychosocial support needs in children and adolescents around the time of disclosure. *Child Care in Practice*, 1–16. <https://doi.org/10.1080/13575279.2021.1902279>
- Bakken, A. (2020). *Ungdata 2020. Nasjonale resultater [Youth data. National results]*. Oslomet – NOVA.
- Baldry, A. C., Sorrentino, A., & Farrington, D. P. (2018). Post-traumatic stress symptoms among Italian preadolescents involved in school and cyber bullying and victimization. *Journal of Child and Family Studies*, 28(9): 2358–64. doi:10.1007/s10826-018-1122-4.
- Barbovschi, M., & Staksrud, E. (2020). *The experiences of Norwegian youth (aged 9 to 17) with sexual content online*. EU Kids Online, Department of Media and Communication, University of Oslo. <http://urn.nb.no/URN:NBN:no-87081>
- Baumgartner, S. E., Valkenburg, P. M., & Peter, J. (2010). Unwanted online sexual solicitation and risky sexual online behavior across the lifespan. *Journal of Applied Developmental Psychology*, 31(6): 439–47. <https://doi.org/10.1016/j.appdev.2010.07.005>
- Best, P., Manktelow, R., & Taylor, B. (2014). Online communication, social media, and adolescent wellbeing: A systematic narrative review. *Children and Youth Services Review*, 41: 27–36. <https://doi.org/10.1016/j.childyouth.2014.03.001>
- Boulton, M. J., Boulton, L., Down, J., Sanders, J., & Craddock, H. (2017). Perceived barriers that prevent high school students seeking help from teachers for bullying and their effects on disclosure intentions. *Journal of Adolescence*, 56(1): 40–51. <https://doi.org/10.1016/j.adolescence.2016.11.009>
- boyd, d. (2002). *Faceted id/entity: Managing representation in a digital world*. Massachusetts Institute of Technology.
- boyd, d. (2011). Social network sites as networked publics: Affordances, dynamics, and implications. In Z. Papacharissi (Ed.), *Networked self: Identity, community, and culture on social network sites* (pp. 39–58). Routledge.



- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2): 77–101.
- Bucher, T. (2018). *If... then: Algorithmic power and politics*. Oxford University Press.
- Bucher, T. (2020). The right-time web: Theorizing the kairologic of algorithmic media. *New Media & Society*, 22(9): 1699–714.
- Buhrmester, D., & Prager, K. (1995). Patterns and functions of self-disclosure during childhood and adolescence. In K. Rotenberg (Ed.), *Disclosure processes in children and adolescents*. (pp. 10–57). Cambridge: University Press.
- Casey, B. J., Jones, R. M., & Hare, T. A. (2008). The adolescent brain. *Annals of the New York Academy of Sciences*, 1124: 111–26. doi:10.1196/annals.1440.010.
- CHILDWISE (2021) *The Monitor report 2021: Section 2 – Websites and apps*. Childwise.
- Coghill, D., & Sonuga-Barke, E.J. (2012), Annual research review: Categories versus dimensions in the classification and conceptualisation of child and adolescent mental disorders – Implications of recent empirical study. *Journal of Child Psychology and Psychiatry*, 53: 469–89. <https://doi.org/10.1111/j.1469-7610.2011.02511.x>
- Rainer, C., & Le, H. (2022). Heads up: Rethinking mental health services for young people at risk of harm. Centre for Mental Health Blog, 1 August. www.centreformentalhealth.org.uk/blogs/heads-rethinking-mental-health-services-young-people-risk-harm
- Compas, B. E., Banez, G. A., Malcarne, V., & Worsham, N. (1991). Perceived control and coping with stress: A developmental perspective. *Journal of Social Issues*, 47(4): 23–34. doi:10.1111/j.1540-4560.1991.tb01832.x.
- Compas, B. E., Jaser, S. S., Bettis, A. H., Watson, K. H., Gruhn, M. A., Dunbar, J. P., Williams, E., & Thigpen, J. C. (2017). Coping, emotion regulation, and psychopathology in childhood and adolescence: A meta-analysis and narrative review. *Psychological Bulletin*, 143(9): 939–91.
- Council on Communications and Media (2013). Children, adolescents, and the media. *Pediatrics*, 132(5): 958–61. doi:10.1542/peds.2013-2656.
- Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory, and antiracist politics. *The University of Chicago Legal Forum*, 1989(1): 139–67. <https://chicagounbound.uchicago.edu/uclf/vol1989/iss1/8>
- Davis, J. L., & Chouinard, J. B. (2016). Theorizing affordances: From request to refuse. *Bulletin of Science, Technology & Society*, 36(4): 241–8. <https://doi.org/10.1177/0270467617714944>
- d’Haenens, L. (2022). *Towards a better understanding of digital skills: On inequalities and their impact*. Zenodo. <https://doi.org/10.5281/zenodo.5821079>
- d’Haenens, L., & Joris, W. (2021). *A fresh approach for digital skills testing needed*. Zenodo. <https://doi.org/10.5281/zenodo.5226882>



- d'Haenens, L., Vandoninck, S., & Donoso, V. (2013) *How to cope and build online resilience?* EU Kids Online, UK. <http://eprints.lse.ac.uk/48115>
- Dickson, K., Richardson, M., Kwan, I., MacDowall, W., Burchett, H., Stansfield, C., Brunton, G., Sutcliffe, K., & Thomas, J. (2018). *Screen-based activities and children and young people's mental health: A systematic map of reviews*. EPPI-Centre, Social Science Research Unit, UCL Institute of Education, University College London. <https://eppi.ioe.ac.uk>
- Dimitropoulos, G., Lindenbach, D., Devoe, D. J., Gunn, E., Cullen, O., Bhattarai, A., Kuntz, J., Binford, W., Patten, S. B., & Arnold, P. D. (2022). Experiences of Canadian mental health providers in identifying and responding to online and in-person sexual abuse and exploitation of their child and adolescent clients. *Child Abuse & Neglect*, 124: 105448. <https://doi.org/10.1016/j.chiabu.2021.105448>
- Donoso, V., Retzmann, N., Joris, W., & d'Haenens, L. (2020) *Digital skills: An inventory of actors and factors*. KU Leuven, ySKILLS. <https://zenodo.org/record/4525639>
- Dubicka, B., & Theodosiou, L. (2020). *Technology use and the mental health of children and young people*. CR225. Royal College of Psychiatrists. www.rcpsych.ac.uk/improving-care/campaigning-for-better-mental-health-policy/college-reports/2020-college-reports/Technology-use-and-the-mental-health-of-children-and-young-people-cr225
- Duerager, A., & Livingstone, S. (2012) *How can parents support children's internet safety?* EU Kids Online, UK. <http://eprints.lse.ac.uk/42872>
- Dunleavy, B. (2022) Study: Kids who spend more time on screens exhibit mental, behavior problems. *Health News*, 16 March. www.upi.com/Health_News/2022/03/16/screen-time-children-behavior-problems-study/5711647437774
- Dyson, M. P., Hartling, L., Shulhan, J., Chisholm, A., Milne, A., Sundar, P., Scott, S. D., & Newton, A. S. (2016). A systematic review of social media use to discuss and view deliberate self-harm acts. *PLoS ONE*, 11(5): e0155813. <https://doi.org/10.1371/journal.pone.0155813>
- El-Asam, A., Lane, R., & Katz, A. (2022). Psychological distress and its mediating effect on experiences of online risk: The case for vulnerable young people. *Frontiers in Education*, 7. <https://doi.org/10.3389/feduc.2022.772051>
- Erikson, E. H. (1968). *Identity: Youth and crisis*. Norton.
- Erstad, O. (2018). Trajectories of knowledge builders: A learning lives approach. *QWERTY – Interdisciplinary Journal of Technology, Culture and Education*, 13(2): 11–31. doi:10.30557/QW000002.
- Federal Trade Commission. (2022). *Bringing dark patterns to light*. September, Federal Trade Commission. www.ftc.gov/reports/bringing-dark-patterns-light
- Ferguson, C. J., Kaye, L. K., Branley-Bell, D., Markey, P., Ivory, J. D., Klisanin, D., Elson, M., Smyth, M., Hogg, J. L., McDonnell, D., Nichols, D., Siddiqui, S., Gregerson, M., & Wilson, J. (2022). Like this meta-analysis: Screen media and mental health. *Professional Psychology: Research and Practice*, 53(2): 205–14. <https://doi.org/10.1037/pro0000426>
- Flick, U. (2002). *An introduction to qualitative research*. SAGE Publications Ltd.



- Fogg, B. J. (2008). Mass interpersonal persuasion: An early view of a new phenomenon. In H. Oinas-Kukkonen, P. Hasle, M. Harjumaa, K. Segerståhl, & P. Øhrstrøm (Eds), *Persuasive technology. Lecture notes in computer science* (pp. 23–34). Springer. https://doi.org/10.1007/978-3-540-68504-3_3
- Fonagy, P., Steele, M., Steele, H., Higgitt, A., & Target, M. (1992). The theory and practice of resilience, *Journal of Child Psychology and Psychiatry*, 35: 231–57.
- Fuller, R., Hallett, C. M., & Murray, C. A. (2001). *Young people and welfare: Negotiating pathways*. Children 5-16 ESRC Research Report. <https://doi.org/10.4324/9780203464618>
- Gillies, D., Christou, M. A., Dixon, A. C., Featherston, O. J., Rapti, I., Garcia-Anguita, A., Villasis-Keever, M., Reebye, P., Christou, E., al Kabir, N., & Christou, P. A. (2018). Prevalence and characteristics of self-harm in adolescents: Meta-analyses of community-based studies 1990–2015. *Journal of American Academy of Child and Adolescent Psychiatry*, 57(10): 733–41. <https://doi.org/10.1016/j.jaac.2018.06.018>
- Goldhaber, M. H. (1997). The attention economy and the Net. *First Monday*, 2(4–7). <https://doi.org/10.5210/fm.v2i4.519>
- Griffiths, M. D. (1995). *Adolescent gambling*. London: Routledge.
- Griffiths, M. D. (2022). Online gaming addiction in youth: Some comments on Rosendo-Rios et al. (2022). *Addictive Behaviors*, 130: 107311, <https://doi.org/10.1016/j.addbeh.2022.107311>
- Gullestad, S. E. (1993). A contribution to the psychoanalytic concept of autonomy. *The Scandinavian Psychoanalytic Review*, 16: 22–34. doi:10.1080/01062301.1993.10592286.
- Haddon, L., Cino, D., Doyle, M.-A., Livingstone, S., Mascheroni, G., & Stoilova, M. (2020). *Children’s and young people’s digital skills: A systematic evidence review*. KU Leuven, ySKILLS. <https://zenodo.org/record/4160176>
- Hamilton-Giachritsis, C., Hanson, E., Whittle, H., Alves-Costa, F., & Beech, A. (2020). Technology assisted child sexual abuse in the UK: Young people’s views on the impact of online sexual abuse. *Children and Youth Services Review*, 119: 105451. <https://doi.org/10.1016/j.childyouth.2020.105451>
- Hammond, S. P., Polizzi, G., & Bartholomew, K. (2022). Using a socio-ecological framework to understand how 8–12-year-olds build and show digital resilience: A multi-perspective and multimethod qualitative study. *Education and Information Technologies*. <https://doi.org/10.1007/s10639-022-11240-z>
- Hanson, R. F., & Lang, J. (2016). A critical look at trauma-informed care among agencies and systems serving maltreated youth and their families. *Child Maltreatment*, 21(2): 95–100. <https://doi.org/10.1177/1077559516635274>
- Hawton, K., Witt, K. G., Taylor Salisbury, T. L., Arensman, E., Gunnell, D., Townsend, E., van Heeringen, K., & Hazell, P. (2015). Interventions for self-harm in children and adolescents. *Cochrane Database of Systematic Reviews*, 12: CD012013.
- Helsper, E. J., Schneider, L. S., van Deursen, A. J. A. M., & van Laar, E. (2021). *The youth Digital Skills Indicator: Report on the conceptualisation and development of the ySKILLS*



- digital skills measure.* ySKILLS. <https://zenodo.org/record/4608010> [see also <https://yskills.eu/the-ydsi-measuring-young-peoples-digital-skills-and-knowledge>].
- Helsper, E. J., Kalmus, V., Hasebrink, U., Sagvari, B., & de Haan, J. (2013). *Country classification: Opportunities, risks, harm and parental mediation.* EU Kids Online. <http://eprints.lse.ac.uk/52023>
- Henson, C., Truchot, D., & Canevello, A. (2021). What promotes post traumatic growth? A systematic review, *European Journal of Trauma & Dissociation*, 5(4). <https://doi.org/10.1016/j.ejtd.2020.100195>
- Herpetz-Dahlmann, B. (2015). Adolescent eating disorders: Update on definitions, epidemiology, and comorbidity. *Child and Adolescent Psychiatric Clinics of North America*, 24(1): 177–96. <https://doi.org/10.1016/j.chc.2014.08.003>
- Hill, C. E., Knox, S., Thompson, B. J., Williams, E. N., Hess, S. A., & Ladany, N. (2005). Consensual qualitative research: An update. *Journal of Counselling Psychology*, 52(2): 196–205. <https://doi.org/10.1037/0022-0167.52.2.196>
- Hine, C. (2015). *Ethnography for the internet: Embedded, embodied and everyday.* Routledge.
- Hollis, C., Falconer, C. J., Martin, J. L., Whittington, C., Stockton, S., Glazebrook, C., & Davies, E. B. (2017). Annual research review: Digital health interventions for children and young people with mental health problems – A systematic and meta-review. *The Journal of Child Psychology and Psychiatry*, 58(4): 474–503. <https://doi.org/10.1111/jcpp.12663>
- Hughes, K., Bellis, M. A., Hardcastle, K.A., Sethi, D., Butchart, A., Mikton, C., Jones, L., & Dunne, M. P. (2017). The effect of multiple adverse childhood experiences on health. *Lancet Public Health*, 2(8): e356–e366. doi:10.1016/S2468-2667(17)30118-4.
- Ipsos MORI. (2014). *Young Londoners' attitudes to health.* July. Social Research Institute. www.ipsos.com/sites/default/files/ct/publication/documents/2017-09/lhc-young-londoners-attitudes-to-health.pdf
- ITU (International Telecommunication Union). (2018). *Measuring the Information Society report, Volume 1.* ITU Publications. [www.itu.int/en/ITU-D/Statistics/Documents/publications/publications/misr2018/MISR-2018-Vol-1-E.pdf](http://www.itu.int/en/ITU-D/Statistics/Documents/publications/misr2018/MISR-2018-Vol-1-E.pdf)
- Jaynes, V., & Wick, I. (2020) *Risky by Design.* 5Rights. <http://riskyby.design>
- Jensen, M., George, M., Russell, M., & Odgers, C. (2019). Young adolescents' digital technology use and mental health symptoms: Little evidence of longitudinal or daily linkages. *Clinical Psychological Science*, 7(6): 1416–33. <https://doi.org/10.1177/2167702619859336>
- Jensen, T. K., Ellestad, A., & Dyb, G. (2013). Children and adolescents' self-reported coping strategies during the Southeast Asian Tsunami. *British Journal of Clinical Psychology*, 52(1): 92–106. <https://doi.org/10.1111/bjc.12003>
- Jensen, T. K., Thoresen, S., & Dyb, G. (2015). Coping responses in the midst of terror: The July 22 terror attack at Utøya Island in Norway. *Scandinavian Journal of Psychology*, 56(1): 45–52. doi:10.1111/sjop.12182.



- Jensen, T. K., Gulbrandsen, W., Mossige, S., Reichelt, S., & Tjersland, O. A. (2005). Reporting possible sexual abuse: A qualitative study on children's perspectives and the context for disclosure. *Child Abuse & Neglect*, 29(12): 1395–413. [10.1016/j.chiabu.2005.07.004](https://doi.org/10.1016/j.chiabu.2005.07.004)
- Jensen, T. K., Holt, T., Ormhaug, S. M., Fjermestad, K. W., & Wentzel-Larsen, T. (2018). Change in post-traumatic cognitions mediates treatment effects for traumatized youth – A randomized controlled trial. *Journal of Counseling Psychology*, 65(2): 166–77. doi:10.1037/cou0000258.
- Johanssen, J. (2019). *Psychoanalysis and digital culture: Audiences, social media, and big data*. Routledge.
- Joleby, M., Landström, S., Lunde, C., & Jonsson, L. S. (2021). Experiences and psychological health among children exposed to online child sexual abuse – A mixed methods study of court verdicts. *Psychology, Crime & Law*, 27(2): 159–81. <https://doi.org/10.1080/1068316X.2020.1781120>
- Jones, L. M., Mitchell, K. J., & Finkelhor, D. (2012). Trends in youth internet victimization: Findings from three youth Internet safety surveys 2000–2010. *Journal of Adolescent Health*, 50: 179–86. doi:[10.1016/j.jadohealth.2011.09.015](https://doi.org/10.1016/j.jadohealth.2011.09.015)
- Jonsson, L. S., Fredlund, C., Priebe, G., Wadsby, M., & Svedin, C. G. (2019). Online sexual abuse of adolescents by a perpetrator met online: A cross-sectional study. *Child and Adolescent Psychiatry and Mental Health*, 13(1): 32. <https://doi.org/10.1186/s13034-019-0292-1>
- Kardefelt-Winther, D. (2015). A critical account of DSM-5 criteria for internet gaming disorder. *Addiction Research & Theory*, 23(2): 93–8. doi:10.3109/16066359.2014.935350.
- Katz, C., Piller, S., Glücklich, T., & Matty, D. E. (2021). ‘Stop waking the dead’: Internet child sexual abuse and perspectives on its disclosure. *Journal of Interpersonal Violence*, 36(9–10): NP5084–NP5104. <https://doi.org/10.1177/0886260518796526>
- Keyes, C. L. M. (2005). Mental illness and/or mental health? Investigating axioms of the complete state model of health. *Journal of Consulting and Clinical Psychology*, 73(3): 539–48. <https://doi.org/10.1037/0022-006X.73.3.539>
- Kloess, J. A., Beech, A. R., & Harkins, L. (2014). Online child sexual exploitation: Prevalence, process, and offender characteristics. *Trauma Violence Abuse*, 15(2): 126–40. <https://doi.org/10.1177/1524838013511543>
- Kofoed, J., & Staksrud, E. (2019). ‘We always torment different people, so by definition, we are no bullies’: The problem of definitions in cyberbullying research. *New Media & Society*, 21(4): 1006–20. <https://doi.org/10.1177/1461444818810026>
- Kuss, D. J., & Griffiths, M. D. (2012). Internet gaming addiction: A systematic review of empirical research. *International Journal of Mental Health Addiction*, 10: 278–96. <https://doi.org/10.1007/s11469-011-9318-5>
- Kuss, D. J., Griffiths, M. D., & Pontes, H. M. (2017). DSM-5 diagnosis of internet gaming disorder: Some ways forward in overcoming issues and concerns in the gaming studies field. *Journal of Behavioral Addictions*, 6(2): 133–41. doi:10.1556/2006.6.2017.032.
- Laurinavičius, A., Žukauskienė, R., & Ustinavičiūtė, L. (2012). Explaining vulnerability to risk and harm. In S. Livingstone, L. Haddon, & A. Görzig (Eds), *Children, risk and safety*



online: *Research and policy challenges in comparative perspective* (pp. 297–308). Policy Press.

- Lau-Zhu, A., Anderson, C., & Lister, M. (2022). Assessment of digital risks in child and adolescent mental health services: A mixed-method, theory-driven study of clinicians' experiences and perspectives. *Clinical Child Psychology and Psychiatry*. <https://doi.org/10.1177/13591045221098896>
- Lavis, A., & Winter, R. (2020). Online harms or benefits? An ethnographic analysis of the positives and negatives of peer-support around self-harm on social media. *Journal of Child Psychology and Psychiatry*, 61(8): 842–54. <https://doi.org/10.1111/jcpp.13245>
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.
- Lemaigre, C., Taylor, E. P., & Gittoes, C. (2017). Barriers and facilitators to disclosing sexual abuse in childhood and adolescence: A systematic review. *Child Abuse & Neglect*, 70: 39–52. <https://doi.org/10.1016/j.chiabu.2017.05.009>
- Lennon, M. (2021). *The state of children's mental health services 2020/21*. Office of the Children's Commissioner. www.childrenscommissioner.gov.uk/wp-content/uploads/2021/01/cco-the-state-of-childrens-mental-health-services-2020-21.pdf
- Levitt, H., Motulsky, S., Morrow, S., & Pontorotto, J. G. (2017). Recommendations for designing and reviewing qualitative research in psychology: Promoting methodological integrity. *Qualitative Psychology*, 4(1): 2–22. <https://doi.org/10.1037/qup0000082>
- Liberman, Z. (2020). Keep the cat in the bag: Children understand that telling a friend's secret can harm the friendship. *Developmental Psychology*, 56(7): 1290–304. doi:10.1037/dev0000960.
- Livingstone, S. (2008). Taking risky opportunities in youthful content creation: Teenagers' use of social networking sites for intimacy, privacy and self-expression. *New Media & Society*, 10(3): 393–411. <http://eprints.lse.ac.uk/27072>
- Livingstone, S. (2013). Online risk, harm and vulnerability: Reflections on the evidence base for child internet safety policy. *ZER: Journal of Communication Studies*, 18: 13–28. <http://eprints.lse.ac.uk/62278>
- Livingstone, S. (2014). Developing social media literacy: How children learn to interpret risky opportunities on social network sites. *Communications: The European Journal of Communication Research*, 39(3): 283–303. <http://eprints.lse.ac.uk/62129>
- Livingstone, S. (2018). iGen: Why today's super-connected kids are growing up less rebellious, more tolerant, less happy – and completely unprepared for adulthood. *Journal of Children and Media*, 12(8): 118–23. doi:10.1080/17482798.2017.1417091. <http://eprints.lse.ac.uk/89730>
- Livingstone, S., & Rahali, M. (2022). #SponsoredAds: Monitoring influencer marketing to young audiences. LSE Media Policy Briefs 23. <https://eprints.lse.ac.uk/113644>
- Livingstone, S., & Smith, P. K. (2014). Annual research review: Harms experienced by child users of online and mobile technologies: the nature, prevalence and management of sexual and



- aggressive risks in the digital age. *Journal of Child Psychology and Psychiatry*, 55(6): 635–54. doi:[10.1111/jcpp.12197](https://doi.org/10.1111/jcpp.12197)
- Livingstone, S., Mascheroni, G., & Staksrud, E. (2018). European research on children's internet use: Assessing the past, anticipating the future. *New Media & Society*, 20(3): 1103–22. doi:10.1177/1461444816685930. <http://eprints.lse.ac.uk/68516>
- Livingstone, S., Mascheroni, G., & Stoilova, M. (2021). The outcomes of gaining digital skills for young people's lives and wellbeing: A systematic evidence review. *New Media & Society*. <https://doi.org/10.1177/14614448211043189>
- Livingstone, S., Kirwil, L., Ponte, C., & Staksrud, E. (2014). In their own words: What bothers children online? *European Journal of Communication*, 29(3): 271–88. doi:10.1177/0267323114521045. http://eprints.lse.ac.uk/62093/1/In_their_own.pdf
- Livingstone, S., Mascheroni, G., Dreier, M., Chaudron, S., & Lagae, K. (2015). *How parents of young children manage digital devices at home: The role of income, education and parental style*. EU Kids Online, LSE. <http://eprints.lse.ac.uk/63378>
- Livingstone, S., Kardefelt-Winther, D., Kanchev, P., Cabello, P., Claro, M., Burton, P., & Phyfer, J. (2019). *Is there a ladder of children's online participation? Findings from three Global Kids Online countries*. UNICEF Research Paper. www.unicef-irc.org/publications/1019-ladder-of-childrens-online-participation-findings-from-three-gko-countries.html
- Ma, K., Anderson, J. K., & Burn, A. M. (2022). Review: School-based interventions to improve mental health literacy and reduce mental health stigma – A systematic review. *Child and Adolescent Mental Health*. <https://doi.org/10.1111/camh.12543>
- Madigan, S., Villani, V., Azzopardi, C., Laut, D., Smith, T., Temple, J. R., Browne, D. & Dimitropoulos, G. (2018). The prevalence of unwanted online sexual exposure and solicitation among youth: A meta-analysis. *Journal of Adolescent Health*, 63(2), 133–41. doi:10.1016/j.jadohealth.2018.03.012.
- Marchant, A., Hawton, K., Stewart, A., Montgomery, P., Singaravelu, V., Lloyd, K., Purdy, N., Daine, K., & John, A. (2017). A systematic review of the relationship between internet use, self-harm and suicidal behaviour in young people: The good, the bad and the unknown. *PLoS ONE*, 12(8): e0181722. <https://doi.org/10.1371/journal.pone.0181722>
- Mars, B., Gunnell, D., Biddle, L., Kidger, J., Moran, P., Winstone, L., & Heron, J. (2020). Prospective associations between internet use and poor mental health: A population-based study. *PLoS ONE*, 15(7): e0235889. <https://doi.org/10.1371/journal.pone.0235889>
- Martin, J. (2016). Child sexual abuse images online: Implications for social work training and practice. *The British Journal of Social Work*, 46(2): 372–88. <https://doi.org/10.1093/bjsw/bcu116>
- Mascheroni, G., Cino, D., Mikuška, J., Lacko, D., & Smahel, D. (2020). *Digital skills, risks and wellbeing among European children: Report on (f)actors that explain online acquisition, cognitive, physical, psychological and social wellbeing, and the online resilience of children and young people*. KU Leuven, ySKILLS. <https://zenodo.org/record/4274602>
- McCormick-Huhn, K., Warner, L. R., Settles, I. H., & Shields, S. A. (2019). What if psychology took intersectionality seriously? Changing how psychologists think about participants.



- McCrae, N., Gettings, S., & Purssell, E. (2017). Social media and depressive symptoms in childhood and adolescence: A systematic review. *Adolescent Research Review*, 2: 315–30. <https://doi.org/10.1007/s40894-017-0053-4>
- McHugh, B. C., Wisniewski, P., Rosson, M. B., & Carroll, J. M. (2018). When social media traumatizes teens: The roles of online risk exposure, coping, and post-traumatic stress. *Internet Research*, 28(5): 1169–88. <https://doi.org/10.1108/IntR-02-2017-0077>
- Meiser-Stedman, R., McKinnon, A., Dixon, C., Boyle, A., Smith, P., & Dalgleish, T. (2019). A core role for cognitive processes in the acute onset and maintenance of post-traumatic stress in children and adolescents. *Journal of Child Psychology and Psychiatry*, 60(8): 875–84. <https://doi.org/10.1111/jcpp.13054>
- Memon, A. M., Sharma, S. G., Mohite, S. S., & Jain, S. (2018). The role of online social networking on deliberate self-harm and suicidality in adolescents: A systematized review of literature. *Indian Journal of Psychiatry*, 60(4): 384–92. doi:10.4103/psychiatry.IndianJPsychiatry_414_17.
- Merrick, M. T., Ports, K. A., Ford, D. C., Afifi, T. O., Gershoff, E. T., & Grogan-Kaylor, A. (2017). Unpacking the impact of adverse childhood experiences on adult mental health. *Child Abuse & Neglect*. 69: 10–19. doi:10.1016/j.chiabu.2017.03.016.
- Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin*, 5: 674–97. <https://doi.org/10.1037/0033-2909.129.5.674>
- Milosevic, T., Ni Bhroin, N., Ólafsson, K., Staksrud, E., & Wachs, S. (2022). Time spent online and children’s self-reported life satisfaction in Norway: The socio-ecological perspective. *New Media & Society*, 1–22. <https://doi.org/10.1177/14614448221082651>
- Mingoia, J., Hutchinson, A. D., Wilson, C. & Gleaves, D. H. (2017). The relationship between social networking site use and the internalization of a thin ideal in females: A meta-analytic review. *Frontiers in Psychology*. <https://doi.org/10.3389/fpsyg.2017.01351>
- Mitchell, K. J., Finkelhor, D., & Wolak, J. (2001). Risk factors for and impact of online sexual solicitation of youth. *Journal of the American Medical Association*, 285: 3011–14.
- Mitchell, R., Brennan, K., Curran, D., Hanna, D., & Dyer, K.F.W. (2017). A meta-analysis of the association between appraisals of trauma and posttraumatic stress in children and adolescents. *Journal of Traumatic Stress*, 30, 88–93. doi:[10.1001/jama.285.23.3011](https://doi.org/10.1001/jama.285.23.3011)
- Moreno, M., Binger, K., Minich, M., Zhao, Q., & Eickhoff, J. (2022). Adolescent digital technology interactions and importance: Associations with depression and well-being. *Cyberpsychology, Behavior, and Social Networking*. <https://doi.org/10.1089/cyber.2021.0294>
- NESH (Den nasjonale forskningsetiske komité for samfunnsvitenskap og humaniora). (Ed.) (2021). *Forskningsetiske retningslinjer for samfunnsvitenskap og humaniora* (5th edn). De nasjonale forskningsetiske komiteer. www.etikkom.no



- Nesi, J. Telzer, E. H., & Prinstein, M. J. (2022). *Handbook of adolescent digital media use and mental health*. Cambridge University Press. <https://doi.org/10.1017/9781108976237>
- NHS Digital. (2020). *Mental health of children and young people in England: Wave 1 follow up to 2017 survey*. https://files.digital.nhs.uk/AF/AECD6B/mhcyp_2020_rep_v2.pdf
- Norwegian Consumer Council. (2018). *Deceived by design: How tech companies use dark patterns to discourage us from exercising our rights to privacy*. <https://fil.forbrukerradet.no/wp-content/uploads/2018/06/2018-06-27-deceived-by-design-final.pdf>
- O’Neill, B. (2014). *First report on the implementation of the ICT principles*. Dublin Institute of Technology & ICT Coalition. www.ictcoalition.eu/medias/uploads/source/First%20Report%20on%20the%20Implementation%20of%20the%20ICT%20Principles.pdf
- Odgers, C., & Jensen, M. (2020). Annual research review: Adolescent mental health in the digital age: facts, fears, and future directions. *The Journal of Child Psychology and Psychiatry*, 61(3): 336–48. <https://doi.org/10.1111/jcpp.13190>
- Ofcom. (2022). *Children and parents: Media use and attitudes report 2022*. www.ofcom.org.uk/data/assets/pdf_file/0024/234609/childrens-media-use-and-attitudes-report-2022.pdf
- Office of the Surgeon General. (2021). *Protecting youth mental health*. www.acf.hhs.gov/cb/news/surgeon-generals-protecting-youth-mental
- Orben, A., Przybylski, A. K., Blakemore, S. J., & Kievit, R. (2022). Windows of developmental sensitivity to social media. *Nature Communications*, 13(1649): 1–10. <https://doi.org/10.1038/s41467-022-29296-3>
- Peter, J., Valkenburg, P. M., & Schouten, A. P. (2005). Developing a model of adolescent friendship formation on the internet. *Cyberpsychology & Behavior*, 8(5): 423–30. <https://doi.org/10.1089/cpb.2005.8.423>
- Pretorius, C., Chambers, D., & Coyle, D. (2019). Young people’s online help-seeking and mental health difficulties: Systematic narrative review. *Journal of Medical Internet Research*, 21(11): e13873. doi:10.2196/13873.
- Prinstein, M. J. (2022). US youth are in a mental health crisis – we must invest in their care. American Psychological Association, News & Advocacy, 7 February. www.apa.org/news/press/op-eds/youth-mental-health-crisis
- Prinstein, M. J., La Greca, A. M., Vernberg, E. M., & Silverman, W. K. (1996). Children’s coping assistance: How parents, teachers, and friends help children cope after a natural disaster. *Journal of Clinical Child Psychology*, 25(4): 463–75. doi:10.1207/s15374424jccp2504_11.
- Renes, R. A., & Aarts, H. (2018). The sense of agency in health and well-being: Understanding the role of the minimal self in action-control. In D. de Ridder, M. Adriaanse, & K. Fujita (Eds), *The Routledge international handbook of self-control in health and well-being* (pp. 193–205). Routledge/Taylor & Francis Group.



- Rosendo-Rios, V., Trott, S., & Shukla, P. (2022). Systematic literature review online gaming addiction among children and young adults: A framework and research agenda. *Addictive Behaviors, 129*: 107238. <https://doi.org/10.1016/j.addbeh.2022.107238>
- Rost, L., Samuels, F., Marcus, R., & Leon-Himmelstine, C. (2020). *Digital approaches to adolescent mental health: A review of the literature*. Working Paper 52. Overseas Development Institute. https://cdn.odi.org/media/documents/odi_digitalapproachesmentalhealth_final.pdf
- Rotenberg, K. J. (1995). *Disclosure processes in children and adolescents*. Cambridge University Press.
- Rutter, M. (2013). Annual research review: Resilience – Clinical implications. *The Journal of Child Psychology and Psychiatry, 54*(4): 474–87. <https://doi.org/10.1111/j.1469-7610.2012.02615.x>
- Šablatúrová, N., Gottfried, J., Blinka, L., Ševčíková, A., & Husarova, D. (2021). Eating disorders, symptoms and excessive internet use in adolescents: The role of internalising and externalising problems. *Journal of Eating Disorders, 9*(152). <https://doi.org/10.1186/s40337-021-00506-5>
- Sawyer, S., Azzopardi, P., Wickremarathne, D., & Patton, G. (2018). The age of adolescence. *Viewpoint, 2*(3): 223–8. [https://doi.org/10.1016/S2352-4642\(18\)30022-1](https://doi.org/10.1016/S2352-4642(18)30022-1)
- Schueller, S. (2022). There’s an app for that? Tackling teen mental health with digital solutions. Connected Learning Alliance. <https://clalliance.org/blog/theres-an-app-for-that-tackling-teen-mental-health-with-digital-solutions>
- Selwyn, N. (2022). What should ‘digital literacy’ look like in an age of algorithms and AI? *Parenting for a Digital Future*. LSE Blogs, 6 April. <https://blogs.lse.ac.uk/parenting4digitalfuture/2022/04/06/digital-literacy-and-ai>
- Skilbred-Fjeld, S., Reme, S. E., & Mossige, S. (2020). Cyberbullying involvement and mental health problems among late adolescents. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 14*(1): 5. <https://doi.org/10.5817/CP2020-1-5>
- Smahel, D., Machackova, H., Mascheroni, G., Dedkova, L., Staksrud, E., Ólafsson, K., Livingstone, S., & Hasebrink, U. (2020). *EU Kids Online 2020: Survey results from 19 countries*. EU Kids Online. doi:10.21953/lse.47fdeqj01of0. www.lse.ac.uk/media-and-communications/assets/documents/research/eu-kids-online/reports/EU-Kids-Online-2020-10Feb2020.pdf
- Smith, A. J., Felix, E. D., Benight, C. C., & Jones, R. T. (2017). Protective factors, coping appraisals, and social barriers predict mental health following community violence: A prospective test of social cognitive theory. *Journal of Traumatic Stress, 30*: 245–53.
- Sonck, N., & de Haan, J. (2013). How the internet skills of European 11- to 16-year-olds mediate between online risk and harm. *Journal of Children and Media, 7*(1): 79–95. <https://doi.org/10.1080/17482798.2012.739783>
- Soots, L. (2015). Flourishing. The Positive Psychology People, March. www.thepositivepsychologypeople.com/flourishing



- Southwick, S. M., Bonanno, G. A., Masten, A. S., Panter-Brick, C., & Yehuda, R. (2014). Resilience definitions, theory, and challenges: Interdisciplinary perspectives. *European Journal of Psychotraumatology*, 1(5): 1–14. <https://doi.org/10.3402/ejpt.v5.25338>
- Staksrud, E. (2016). *Children in the Online World: Risk, Regulation, Rights*. Routledge.
- Staksrud, E. (2017). Et gagns digitalt menneske? In B. K. Engen, T. Giæver, Hilde, & L. Mifsud (Eds), *Digital dømmekraft* (pp. 168–83). Cappelen Damm Akademisk.
- Staksrud, E., & Livingstone, S. (2009). Children and online risk: Powerless victims or resourceful participants? *Information, Communication and Society*, 12(3): 364–87. <http://eprints.lse.ac.uk/30122>
- Staksrud, E., & Ólafsson, K. (2016). Hva kjennetegner europeiske barn som har erfaring med nettsider hvor folk diskuterer måter å ta sitt eget liv på? [What characterizes European children who have experience with websites where people discuss ways to take their own lives] *Suicidologi*, 21(2): 36–43. <https://journals.uio.no/index.php/suicidologi/index>,
- Staksrud, E., Olafsson, K., & Milosevic, T. (2020). Children as crowbar? Justifying censorship on the grounds of child protection. *Nordic Journal of Human Rights*, 38(2): 159–73. <https://doi.org/10.1080/18918131.2020.1777770>
- Stänicke, L. I. (2019). *The punished self, the unknown self, and the harmed self: towards a more nuanced understanding of self-harm in adolescence*. Doctoral thesis, University of Oslo.
- Stänicke, L. I. (2022). ‘I chose the bad’. Youths’ meaning making of being involved in self-harm content online during adolescence. *Child & Family Social Work*. doi:10.1111/cfs.12950.
- Stige, S. H., Andersen, A. C., Halvorsen, J. E., Halvorsen, M. S., Binder, P.-E., Måkestad, E., & Albæk, A. U. (2022). Possible paths to increase detection of child sexual abuse in child and adolescent psychiatry: A meta-synthesis of survivors’ and health professionals’ experiences of addressing child sexual abuse. *International Journal of Qualitative Studies on Health and Well-being*, 17(1): 2103934. doi:10.1080/17482631.2022.2103934.
- Stoilova, M., Livingstone, S., & Donovan, S. (2019). *Outcomes and effectiveness of children’s helplines: A systematic evidence mapping*. NSPCC, Impact and Evidence Series. <https://learning.nspcc.org.uk/media/1844/outcomes-effectiveness-children-helplines.pdf>
- Stoilova, M., Livingstone, S., & Nandagiri, R. (2020). Digital by default: Children’s capacity to understand and manage online data and privacy. *Media and Communication*, 8(4). www.cogitatiopress.com/mediaandcommunication/article/view/3407
- Stoilova, M., Nandagiri, R., & Livingstone, S. (2021a). Children’s understanding of personal data and privacy online – A systematic evidence mapping. *Information, Communication & Society*, 24(4): 557–75. <https://doi.org/10.1080/1369118X.2019.1657164>
- Stoilova, M., Edwards, C., Kostyrka-Allchorne, K., Livingstone, S., & Sonuga-Barke, E. (2021b). *The impact of digital experiences on adolescents with mental health vulnerabilities: A multimethod pilot study*. London School of Economics and Political Science. doi:10.18742/pub01-073. <http://eprints.lse.ac.uk/112931>
- Stronge, S., Greaves, L. M., Milojev, P., West-Newman, T., Barlow, F. K., & Sibley, C. G. (2015). Facebook is linked to body dissatisfaction: Comparing users and non-users. *Sex Roles*, 73: 200–13.



- Suren, P., Furu, K., Reneflot, A., Nes, R. B., & Torgersen, L. (2018). *Livskvalitet og psykiske lidelser hos barn og unge [Quality of life and mental health disorders amongst children and youth in Norway]*. Folkehelseinstituttet [Norwegian Institute of Public Health].
- Tan, L., & Kim, B. (2015). Learning by doing in the digital media age. In T. B. Lin, V. Chen, & C. Chai (Eds), *New media and learning in the 21st century*. Education Innovation Series, Springer. https://doi.org/10.1007/978-981-287-326-2_12
- Thapar, A., Pine, D. S., Leckman, J. F., Scott, S., Snowling, M. J., & Taylor, E. (2015). *Child and adolescent psychology* (Sixth edn). John Wiley & Sons, Ltd. doi:10.1002/9781118381953.
- Thoresen, S., Jensen, T. K., Wentzel-Larsen, T., & Dyb, G. (2014). Social support barriers and mental health in terrorist attack survivors. *Journal of Affective Disorders*, 156: 187–93. <http://dx.doi.org/10.1016/j.jad.2013.12.014>
- Tymula, A., Rosenberg Belmaker, L.A., Roy, A. K., Ruderman, L., Manson, K., Glimcher, P. W., & Levy, I. (2012). Adolescents' risk-taking behavior is driven by tolerance to ambiguity. *PNAS*, 109(42): 17135–40. <https://doi.org/10.1073/pnas.1207144109>
- Uhls, Y., Ellison, N. B., & Subrahmanyam, K. (2017). Benefits and costs of social media in adolescence. *Pediatrics*, 140: S67. doi:10.1542/peds.2016-1758E.
- UKCIS (United Kingdom Council for Internet Safety). (2020). *Digital Resilience Framework: A framework and tool for organisations, communities and groups to help people build resilience in their digital life*. UKCIS. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/831217/UKCIS_Digital_Resilience_Framework.pdf
- UN (United Nations) Committee on the Rights of the Child. (2021). General Comment No. 25 on Children's Rights in Relation to the Digital Environment (CRC/C/GC/25). www.ohchr.org/EN/HRBodies/CRC/Pages/GCChildrensRightsRelationDigitalEnvironment.aspx
- Ungar, M. (Ed.) (2021). *Multisystemic resilience: Adaptation and transformation in contexts of change*. Oxford University Press. <https://doi.org/10.1093/oso/9780190095888.001.0001>
- UNICEF (United Nations Children's Fund). (2021). *The state of the world's children 2021: On my mind – Promoting, protecting and caring for children's mental health*. UNICEF. www.unicef.org/reports/state-worlds-children-2021
- UNICEF & and ITU (International Telecommunication Union). (2020). *How many children and young people have internet access at home? Estimating digital connectivity during the COVID-19 pandemic*. UNICEF. www.unicef.org/reports/how-many-children-and-young-people-have-internet-access-home-2020
- Vandoninck, S., & d'Haenens, L. (2015). Children's online coping strategies: Rethinking coping typologies in a risk-specific approach. *Journal of Adolescence*, 45: 225–36. <https://doi.org/10.1016/j.adolescence.2015.10.007>
- Vandoninck, S., d'Haenens, L., & Roe, K. (2013). Online risks: Coping strategies of less resilient children and teenagers across Europe. *Journal of Children and Media*, 7(1): 60–78. <https://doi.org/10.1080/17482798.2012.739780>



- Vissenberg, J., d'Haenens, L., & Livingstone, S. (2022). Digital literacy and online resilience as facilitators of young people's well-being? *European Psychologist*, 27(2): 76–85.
- von Weiler, J., Haardt-Becker, A., & Schulte, S. (2010). Care and treatment of child victims of child pornographic exploitation (CPE) in Germany: Child sexual abuse and the internet: Offenders, victims and managing the risk. *The Journal of Sexual Aggression*, 16(2), 211–22.
- Vuorikari, R., Kluzer, S., & Punie, Y. (2022). *DigComp 2.2. The Digital Competence Framework for citizens – With new examples of knowledge, skills and attitudes*. Publications Office of the European Union. doi:10.2760/115376.
- Wang, P., Wang, X., Wu, Y., Xie, X., Wang, X., Zhao, F., Ouyang, M., & Lei, L. (2018). Social networking sites addiction and adolescent depression: A moderated mediation model of rumination and self-esteem. *Personality and Individual Differences*, 127: 162–7. <https://doi.org/10.1016/j.paid.2018.02.008>
- Watson, A. J., & Valtin, R. (1997). Secrecy in middle childhood. *International Journal of Behavioral Development*, 21(3): 431–52.
- WHO (World Health Organization). (2020). Addictive behaviours: Gaming disorder. Newsroom, Questions and Answers, 22 October. www.who.int/news-room/questions-and-answers/item/addictive-behaviours-gaming-disorder
- Wolak, J., Finkelhor, D., Mitchell, K. J., & Ybarra, M. L. (2008). Online 'predators' and their victims: Myths, realities, and implications for prevention and treatment. *American Psychologist*, 63(2): 111–28. doi:10.1037/0003-066X.63.2.111.
- Wolfers, L. N., & Schneider, F. M. (2020). Using media for coping: A scoping review. *Communication Research*, 48(8). doi:0093650220939778.
- Ybarra, M. L., Espelage, D. L., & Mitchell, K. J. (2007). The co-occurrence of internet harassment and unwanted sexual solicitation victimization and perpetration: Associations with psychosocial indicators. *The Journal of Adolescent Health*, 41(6): S31–S41. doi:10.1016/j.jadohealth.2007.09.010.
- Young, K. S. (1996). Psychology of computer use: XL. Addictive use of the internet: A case that breaks the stereotype. *Psychological Reports*, 79(3 Pt 1): 899–902. <https://doi.org/10.2466/pr0.1996.79.3.899>



Appendices

Appendix 1: Brief review of research linking mental health to digital engagement

Self-harm and exposure to self-harm content

Research suggests that one in six 12- to 18-year-olds engage in self-harm, with higher numbers among girls struggling with psychological issues (Gillies et al., 2018). Self-harm is usually initiated early in adolescence and peaks around the age of 15 (Gillies et al., 2018). Some 8–17% of European adolescents report exposure to online self-harm content, and this is associated with being bullied and mental health difficulties (Smahel et al., 2020).²⁴⁰ Furthermore, analysis from the 2011 EU Kids Online study with data from 25 countries showed how, on average, 4.5% of 11- to 16-year-olds, and 8.2% in the Nordic countries, had experience with online sites where people discuss how to kill themselves. The study also showed how all variables that measured mental health difficulties were positively correlated with such an experience and having been involved in bullying increased the likelihood visiting such sites by 134% for victims of online bullying (Staksrud & Ólafsson, 2016). Frequent online use and repeated searching for self-harm content online are correlated with higher levels of social psychological distress, an unmet need for mental health support, and thoughts of self-harm and suicide (Memon et al., 2017).

Young people with lived experience of eating disorders or self-harm more often see, and seek, online content or communities relating to their mental health difficulties (El-Asam et al., 2022; Stoilova et al., 2021b). Such content can be triggering, normalising self-harm or encouraging it through competition and glamorisation (Marchant et al., 2017). The specific affordances of the digital environment can make such problematic and often-unmoderated content easy to find, even amplifying it through algorithms designed to maximise and retain users' attention (5Rights, 2021). At the same time, engaging with self-harm content online can bolster a feeling of emotional control and crisis support, curbing self-harm urges, and serving as a community where gender issues, distress and recovery may be communicated among vulnerable young people (Lavis & Winter, 2020; Stänicke, 2022). Worryingly, only about one-third of those who harm themselves are referred for help (Hawton et al., 2015). Prior studies have shown that those who harmed themselves and searched for self-harm content online did not know where to get professional help (Dyson et al., 2016). Among those who do seek help, they are more likely to seek informal sources than professional ones, and more often self-disclose online than ask for help in person.

Cyberbullying

Online or cyberbullying entails harassing someone, posting threats or insulting comments and spreading rumours on social media or through other forms of electronic communication, such as emails and texts. Prevalence of online bullying varies, partly due to inconsistent definitions and measurement (Kofoed & Staksrud, 2019). A recent review in a range of European countries found prevalence rates between 37% in Romania and 13% in Spain (Athanasidou et al., 2018). A nationally representative group of Norwegian young people aged 18–21 showed a prevalence rate of 5% (Skilbred-Fjeld et al., 2020).

Even though online and face-to-face bullying share some commonalities, and often affect the same victims (Barbovski & Staksrud, 2021), online bullying is characterised by a lack of boundaries so that young victims may be exposed any time of the day and anywhere, meaning there are few safe

²⁴⁰ The incidence of risks also varies considerably across countries, due to a host of cultural and regulatory factors. For example, among 12- to 16-year-old internet users, 8% have seen ways of harming themselves online at least monthly in Norway, while over twice as many say this in Poland (19%) although just 2% in Germany (the European average is 10%). Similar figures apply to reports of seeing ways of committing suicide online (country average is 8%), ways to be very thin (12%), experiences of taking drugs (11%), and so forth (Smahel et al., 2020).



harbours for victims. Also, online bullying can be observed by a large group of people, possibly adding to feelings of shame (Perret et al., 2020). Regarding the consequences of bullying, most research has focused on face-to-face bullying, but cyberbullying has been linked to negative health consequences such as depression, anxiety, posttraumatic stress disorder (PTSD), self-harm and suicide (Baldry et al., 2018; McHugh et al., 2018; Perret et al., 2020).

Online sexual abuse

Studies show that most online sexual contact is between peers, consensual and viewed as positive experiences (Jonsson et al., 2019; Livingstone & Smith, 2014). However, some children experience unwanted sexual contact, often by older people, where they feel coerced or pressured to do sexual things online. This online sexual abuse consists of a wide range of situations such as an older person having sexual conversations with a child or asking a child to pose naked or perform sexual activities online. While there are numerous studies examining prevalence rates of child sexual abuse and its consequences on child mental health, there is generally a dearth of studies on online abuse, and rates vary according to definitions of online sexual abuse.

For unwanted sexual solicitation (defined as requests to engage in sexual activities or sexual talk or give personal sexual information that is unwanted or, whether wanted or not, made by an adult), studies have shown prevalence rates from 5% to 36% (see, for instance, Baumgartner et al., 2010; Jones et al., 2012; Jonsson et al., 2019). One recent meta-analysis found that one in nine young people had experience of unwanted sexual solicitation (Madigan et al., 2018), whereas Livingstone and Smith (2014) found in their review of risks of cyberbullying, contact with strangers, sexting and pornography that less than one in five young people had reported such experiences. Surprisingly rates do not seem to be rising despite increased access to online technologies (Jones et al., 2012; Livingstone & Smith, 2014), although studies are not conclusive, definitions of online sexual abuse vary and little is known about the possible underreporting of abuse (Katz et al., 2021; Kloess et al., 2014).

On- and offline sexual abuse often coincide, and both risk factors and mental health consequences seem to overlap (Joleby et al., 2021). Jonsson et al. (2019), for instance, found that adolescent victims of online sexual abuse had also experienced more physical, psychological and offline sexual abuse than non-victims. Wolak and colleagues (2008) found that the group most vulnerable to online sexual abuse are high-risk young people with a prior history of sexual abuse.

High rates of PTSD, depression, low self-esteem, delinquency, substance abuse, behavioural problems, difficulties at school and depressive symptomatology have been found in young people engaged in online sexual activity (Hamilton-Giachritsis et al., 2020; Joleby et al., 2021; Jonsson et al., 2019; Mitchell et al., 2001; Ybarra et al., 2007), although the pathways to mental health difficulties are not easily disentangled since many of these young people are polyvictimised and at-risk children (Baumgartner et al., 2010; Jonsson et al., 2019; Wolak et al., 2008). However, the consequences of online sexual abuse may be further intensified when pictures and videos are distributed because of the permanence and ease of accessibility of the images, leaving the victims in a constant sense of fear and vulnerability (Jonsson et al., 2019). They cannot feel safe because of the permanence of the images and accessibility of victims' images on the internet (Hamilton-Giachritsis et al., 2020; von Weiler et al., 2010).

Despite the possible devastating consequences, mental health professionals seem to believe that online abuse presents less risk to victims than in-person incidents (Hamilton-Giachritsis et al., 2020). Many professionals feel inadequately prepared to identify and effectively respond to incidents of online sexual abuse (Dimitropoulos et al., 2022; Martin, 2016). In sum, the literature on how child online sexual abuse is experienced and dealt with by the victims of such abuse, and



how mental health professionals can help disclose and cope with online abuse, remains inconclusive, with more research needed.

Eating disorders

Eating disorders are the third most common illness among young people, referring to a spectrum of disorders related to fear of fatness, body and weight preoccupation and distorted eating habits (Herpetz-Dahlmann, 2015). The most frequent eating disorders are anorexia and bulimia. Anorexia is associated with starvation, strict dieting and hyperactivity, aimed at controlling weight. Bulimia is also related to fear of fatness and attempts to lose weight but fasting is interrupted with binge-eating episodes (Herpetz-Dahlmann, 2015). A common symptom across various eating disorders is body image disturbance. Body image is defined as the pictures we have in mind about the shape and size of our body and various body parts. Young people struggling with eating disorders are more preoccupied than average about their size and shape and check their posture regularly throughout the day. Although eating disorders are primarily psychiatric, the effect of starvation and hyperactivity may lead to various physical disorders and metabolic changes that might uphold and increase maladaptive symptom patterns (Herpetz-Dahlmann, 2015).

Increased social media use has been associated with the internalisation of thin body ideals and higher body dissatisfaction that for some result in unfavourable comparison with their own bodies and the development of eating disorders (Stronge et al., 2015). The real-time and personalised aspects of social media have been suggested as possible explanations for the association between online engagement and internalisation of thin body ideals. Meta-analysis has revealed that the internalisation of thin body ideals is correlated with appearance-related content and not social media use in general, suggesting that young people at risk of developing eating disorders are more prone to actively seek risky content (Mingoia et al., 2017). In addition, there is an association between excessive use of social media and the development of eating disorders among young people that may reflect shared underlying factors related to emotional and behavioural difficulties (Šablatúrová et al., 2021).

Excessive or problematic internet use

One of the most contested aspects of young people's use of digital technology is that of excessive use, since the definition of 'excessive' varies widely. Concerns regarding screen time have been influenced by earlier research on the impact of television viewing on children, leading to what may now be considered over-cautious guidance – limiting viewing to less than two hours per day (Council on Communications and Media, 2013). Recent guidance from the American Academy of Child & Adolescent Psychiatry (2020) recommends greater consideration of the impact of use on, for example, sleep, mood or physical activity, along with a greater engagement of parents with their child's digital life. Using such a definition, EU Kids Online found that around one in ten European adolescents aged 12–16 struggles with excessive internet use (for example, 10% say they are bothered when they cannot be online, 13% have spent less time with family, friends or schoolwork because of time spent online, and 10% have tried unsuccessfully to spend less time online) (Smahel et al., 2020). However, it is important to recognise that economic disadvantage or lower education may prevent families from achieving an empowering, 'active mediation', which includes 'efforts to promote offline (non-digital) activities for children while limiting digital activities in the home' (Livingstone et al., 2015: 5).

Also contested is whether some excessive use might be described as problematic or even an 'addiction', as suggested by Young (1996), influenced by research into gambling (Griffiths, 1995). 'Internet addiction' as a diagnostic term has been questioned for its lack of specificity (Kuss et al., 2017) and tendency to pathologise 'normal' behaviour, while 'problematic use' has become the



preferred term (Kuss & Griffiths, 2012). The inclusion of ‘internet gaming disorder’ in the 5th edition of the US *Diagnostic and Statistical Manual of Mental Disorders* did not resolve the contested issues (Kardefelt-Winther, 2014; Kuss et al., 2017), but it contributed to a growing consensus on the importance of the impact of use rather than on motivations, such as mood modification, which could be present in ordinary use. The inclusion of ‘gaming disorder’ by the World Health Organization (WHO, 2020) in the International Classification of Diseases (ICD-11) in 2018 specified that beyond difficulties regulating use, continued use despite negative consequences *over time* is key.

These developments facilitated an explosion of research, and the model of problematic use has been applied to other areas (devices, specific platforms), while use of digital media has become more complex. For example, the social aspects of gaming, including within social media, highlight how technologies converge, which makes it challenging to identify the factors that increase use (Griffiths, 2022; Rosendo-Rios et al., 2022). Research has also examined how technology companies maintain or increase use through persuasive design (Fogg, 2008), as well the factors that may underlie greater use, such as low mood and low self-esteem (Wang et al., 2018). Meanwhile, technology continues to innovate, and young people now engage with streaming, influencers, e-sports stars, crypto-technologies and more, all changing the nature and impacts of internet use, even making some problematic use profitable. Ultimately, assessment of use without understanding the user’s context, digital skills or intent can lead to the wrong conclusions, making it imperative to investigate carefully before using terms such as ‘excessive’, ‘problematic’ or even ‘addictive’ use.



Appendix 2: Sample details

Table 2		THE UK SAMPLE			
Method	Online or in person	Inter view length	Gender and age	Mental health and other disorders	How recruited
Focus group 01	Online	55 mins	Female, 14 (UKF01) Female, 17 (UKF02) Female, 17 (UKF03)	UKF01: Dissociative identity disorder UKF02: History of probable anxiety and depressive disorders UKF03: No disclosed mental health disorder	Southern city NGO
Focus group 02	Online	78 mins	Female, 17 (UKF04) Female, 17 (UKF05) Female, 18 (UKF06) Male, 18 (UKM01) Male, 17 (UKM02)	UKF04: Autism spectrum disorder, sexual abuse; PTSD UKF05: Self-harm, grooming (age 10), sexual abuse, probable anxiety and depressive disorders UKF06: Mental health service user, self-harm, probable anxiety and depressive disorders UKM01: No disclosed mental health disorder UKM02: No disclosed mental health disorder	Northern city NGO
Interview 01 (pair)	In person	64 mins	Female, 17 (UKF04; from FG02) Female, 18 (UKF07)	UKF04: Autism spectrum disorder, sexual abuse UKF07: Sexual abuse	Northern city NGO
Interview 02 (pair)	In person	67 mins	Female, 17 (UKF05, from FG02) Female, 18 (UKF06, from FG02)	UKF05: Self-harm, grooming (age 10), sexual abuse, probable anxiety and depressive disorders UKF06: Mental health service user, self-harm, probable anxiety and depressive disorders	Northern city NGO
Interview 03	In person	55 mins	Male, 17 (UKM02, from FG02)	No disclosed mental health disorder	Northern city NGO
Interview 04	Online	56 mins	Female, 16 (UKF08)	History of probable anxiety and depressive disorders; possible PTSD	Southern city NGO
Interview 05 (pair)	Online	80 mins	Male, 14 (UKM03) Male, 12 (UKM04)	UKM03: Excessive user/gamer (self-assessed) UKM04: Excessive user/gamer (self-assessed)	Southern city NGO



Interview 06 (pair)	Online	64 mins	Female, 16 (UKF09) Male, 17 (UKM05)	UKF09: Sexual abuse, PTSD, supported by specialist trauma service UKM05: No disclosed mental health difficulties	Southern city NGO
Interview 07	Online	65 mins	Female, 17 (UKF10)	History of probable binge-eating disorder and suicidal behaviours	Southern city NGO
Interview 08	In person	55 mins	Male, 18 (UKM06)	Probable anxiety disorder	Northern city NGO
Interview 09 (pair)	In person	52 mins	Female, 22 (UKF11) Female, 17 (UKF12)	UKF11: Eating disorder UKF12: Probable anxiety disorder	Northern city NGO
Interview 10	In person	45 mins	Female, 19 (UKF13)	Probable depressive disorder linked to cyberbullying	Northern city NGO
Interview 11	In person	59 mins	Female, 18 (UKF14)	Probable anxiety disorder, suicidal thoughts	Northern city NGO
Interview 12	Online	54 mins	Female, 14 (UKF15)	History of a subclinical eating disorder and depressed mood	Southern city NGO
Interview 13	Online	53 mins	Female, 17 (UKF16)	Probable depressive disorder, panic episodes and possible self-harm, following a period of bullying; two-year CAMHS support	Southern city NGO
Interview 14	Online	51 mins	Male, 16 (UKM07)	No disclosed mental health disorder, possible bullying	Southern city NGO
Interview 15	Online	59 mins	Male, 17 (UKM08)	Bipolar disorder, mental health service user	Southern city NGO
Interview 16	Online	57 mins	Male, 14 (UKM09)	Excessive user/gamer (self-assessed)	Via another participant
Interview 17	Online	53 mins	Male, 14 (UKM10)	No disclosed mental health disorder	Southern city NGO
Interview 18	Online	55 mins	Female, 15 (UKF17)	Probable anxiety disorder, receiving additional, non-clinical support in school	Southern city NGO
Interview 19	Online	56 mins	Male, 14 (UKM11)	Adjustment disorder after death of a close friend	Southern city NGO
Interview 20	Online	53 mins	Male, 15 (UKM12)	ADHD and Tourette's syndrome, anxiety disorder, mental health service user	Southern city NGO



Interview 21	Online	49 mins	Female, 15 (UKF18)	History of anxiety disorder following bullying; possible PTSD; mental health service user	Southern city NGO
Interview 22	Online	49 mins	Male, 16 (UKM13)	No disclosed mental health disorder	Southern city NGO
Interview 23	Online	54 mins	Female, 16 (UKF19)	Low self-esteem, anxiety, possible undisclosed eating disorder or self-harm	Southern city NGO

Table 3		THE NORWEGIAN SAMPLE			
Method	Online or in person	Interview length	Gender and age	Mental health and other conditions	How recruited
Interview 1	Online	105 mins	Female, 18 (NF01)	PTSD, bullying, online sexual abuse	Specialised mental health clinic, BUP
Interview 2	In person	84 mins	Female, 17 (NF02)	Eating disorder, self-harm, suicide ideation, online self-harm content	Specialised mental health clinic, BUP
Interview 3	Online	82 mins	Female, 14 (NF03)	PTSD, online sexual abuse	Specialised mental health clinic, BUP
Interview 4	In person	75 mins	Female, 16 (NF04)	Eating disorder, depression, self-harm, suicide ideation, online pro-ana and self-harm content	Specialised mental health clinic, BUP
Interview 5	Online	58 mins	Female, 14 (NF05)	PTSD, online and offline bullying, online and offline sexual abuse	Specialised mental health clinic, BUP
Interview 6	In person	63 mins	Female, 17 (NF06)	Depression, self-harm, online self-harm content	Specialised mental health clinic, BUP
Interview 7	In person	85 mins	Female, 17 (NF07)	Eating disorder, self-harm, online sexual abuse, online self-harm content	Specialised mental health clinic, BUP



Interview 8	In person	81 mins	Female, 19 (NF08)	Depression, self-harm, suicide ideation, online self-harm content	Specialised mental health clinic, BUP
Interview 9	In person	65 mins	Female, 18 (NF09)	Depression, PTSD, self-harm, online self-harm and pro-ana content	Specialised mental health clinic, BUP
Interview 10	In person	79 mins	Female, 19 (NF10)	Self-harm, suicide ideation, online sexual abuse	Clinical psychologist in private practice
Interview 11	In person	59 mins	Female, 18 (NF11)	Depression, self-harm, suicide ideation, online self-harm content	Clinical psychologist in private practice
Interview 12	In person	75 mins	Female, 16 (NF12)	PTSD, self-harm, online sexual abuse, online self-harm content	Specialised mental health clinic, BUP
Interview 13	In person	66 mins	Female, 15 (NF13)	Depression and self-harm, online exposure to self-harm content and online racism	Clinical psychologist in private practice
Interview 14	In person	82 mins	Female, 16 (NF14)	PTSD, online sexual abuse	Specialised mental health clinic, BUP
Interview 15	In person	66 mins	Female, 18 (NF15)	Depression, anxiety, PTSD, cyberbullying, online sexual abuse	NGO group for young people with mental health challenges
Interview 16	In person	62 mins	Male, 17 (NM01)	Cyberbullying, online sexual abuse, unwanted sharing of nude pictures	NGO group for young people with mental health challenges
Interview 17	In person	58 mins	Female, 17 (NF16)	Bullying, cyberbullying	NGO group for young people with mental health challenges
Interview 18	In person	71 mins	Female, 18 (NF17)	Eating disorder, bullying, online pro-ana content	Clinical psychologist in private practice
Interview 19	In person	110 mins	Female, 17 (NF18)	Self-harm, online sexual abuse	Specialised mental health clinic, BUP



Interview 20	In person	78 mins	Male, 19 (NM02)	Anxiety, depression, online sexual abuse, cyberbullying	Clinical psychologist in private practice
Interview 21	In person	65 mins	Male, 13 (NM03)	Identity and gender questioning	Specialised mental health clinic, BUP
Interview 22	In person	65 mins	Female, 13 (NF19)	Self-harm, suicide ideation, online sexual abuse	Clinical psychologist in private practice
Interview 23	In person	86 mins	Female, 18 (NF20)	Depression, bullying and self-harm, cyberbullying, online self-harm content, online sexual abuse	NGO group for young people with mental health challenges
Interview 24	In person	73 mins	Female, 20 (NF21)	Negative experiences online in general, involved in online suicide groups	NGO group for young people with mental health challenges
Interview 25	In person	70 mins	Female, 19 (NF22)	Online sexual abuse, unwanted sharing of nude pictures	NGO group for young people with mental health challenges
Interview 26	In person	69 mins	Female, 17 (NF23)	Anxiety, depression, PTSD, online and offline sexual abuse	Clinical psychologist in private practice
Interview 27	In person	59 mins	Female, 16 (NF24)	Online and offline sexual abuse, unwanted sharing of nude pictures	NGO group for young people with mental health challenges
Interview 28	In person	76 mins	Female, 15 (NF25)	Self-harm, online pro-ana and violent content	Community psychologist
Interview 29	In person	97 mins	Female, 16 (NF26)	Online sexual abuse	NGO group for young people with mental health challenges
Interview 30	In person	75 mins	Female, 19 (NF27)	Online and offline sexual abuse, unwanted sharing of nude pictures	Specialised mental health clinic, BUP



Appendix 3: Interview topic guide

I. Introduction (5 mins)

Thank you for agreeing to participate. We are interested in how your uses of digital technology relate to how you feel and how you go about your day. By digital technology we mean all the digital devices, apps, social media or other online services that you might use.

We want to understand the risks and opportunities for young people in relation to their mental health. We will use the results to provide guidance to professional support and youth services as well as the tech industry and government. As part of our interview today, we will ask you what advice you might have for mental health services too.

We are keen to learn your thoughts and experiences. There are no right or wrong answers. If there are any questions that you don't want to answer, just say so and we'll move on to the next question. This conversation will be anonymous: we will remove your name, any personal information and the names of any people or places you mention, so that you can't be identified when we publish our results. What you say today will be kept confidential. However, if I become concerned about your wellbeing based on some of the things you share with me, I will discuss this with you.

We might need up to one hour (UK)/between 60 and 90 minutes (Norway). We would like to record the conversation (if on Zoom, we'd keep the audio, and not the video).

II. Digital technology and mental health (15 mins)

Let's start with how you use digital technologies and what is important to you.

1. Which apps do you use most often? What do you like about them? Why is it important for you to use those apps?
2. How do you feel after spending time on these apps? And do you use them differently depending on your mood? Are there any negative aspects? Do they affect how you function (how you go about your day)? Have you found ways to use apps to support your wellbeing?
3. If you suddenly lost access to digital/social media, how would your day be? How would it be different?
4. What can you tell us a bit about the kinds of people you are in touch with on social media? Online, what kinds of communication or communities are you part of?
5. How does this compare with the people you see in person – same or different people, same or different experiences? Do you show different sides of yourself in different contexts?
6. Has the way you use technology changed during the pandemic? In what ways?

Prompts for more: What more can you tell us about that? Can you give an example? Why do you think that is?

We are particularly interested in experiences of heavy internet use/hostility or bullying/self-harm. Do you think these experiences are linked to how young people use digital technology?

7. Are there any negative aspects of using apps/social media if someone is feeling low?
8. What are the features of the apps that could affect people negatively if they are feeling low (counting 'likes', recommended content, private groups, hashtags linked to harm, anonymity, influencers)?
9. What is it about those apps that makes them [*follow up on what was said: e.g., attractive, problematic or triggering etc.*]?



10. What about for you – do you find some features of the apps difficult or negative? Do these features lead to upsetting or harmful content or contacts for you? Have you figured out ways to avoid or cope with these features? What have you learned? What advice do you have for others who struggle with their mental health – e.g., for a friend in a similar position?
11. Have you found ways that digital technologies can be helpful or supportive, especially when you are feeling unhappy or anxious? Can you give an example? Why do you think that helps?

III. Challenging experiences online (15 mins)

Thinking about any experiences you have had of online self-harm content/hostility or bullying/sexual encounters/heavy use...

12. Can you tell me a little bit about these experiences – what happened?
Prompts for a narrative:
 - *How did it all begin? Are you still experiencing it, or is it all over now?*
 - *How did you respond at the time?*
 - *Did being online make things better or worse? In what ways? Did you get any online help? Or useful information?*
 - *What about help offline – from friends or parents or ...?*
 - *How do you look back on what happened now?*
 - *Did you learn anything that can help you in the future, in case things get difficult again?*
13. Could you tell us about one episode or experience that you remember well, that had a big impact on you? Can you tell me what happened that particular time?
Prompt them to explain in detail what happened from the beginning:
 - *What did you feel and think? [We are curious about: dysfunctional thoughts they may have about themselves and the world, e.g., ‘I deserve this’, ‘I am a bad person’, ‘I should not trust anyone’, ‘The world is a dangerous place’, positive and negative feelings; and how these related to other people – guilt, sense of community, shame, made me feel good, competent, attractive, loved etc.]*
 - *Ensure they talk about the digital dimension of the experience (which app, who else knew or saw what happened, whether it was private or anonymous, etc.)*
 - *Did you feel in control of the situation/that you could decide what would happen? [We are curious about agency, asking for help, refusal skills, decision-making skills etc.]*
 - *Did you talk to anyone about this? If yes, who/why/was it helpful? If not, why not ...? Prompt also on sharing with therapist or clinician.*

IV. Digital skills (10 mins)

We are also trying to understand the role of digital skills for young people’s wellbeing.

14. What are ‘digital skills’ for you? What does it mean to have ‘digital skills’?
15. Thinking broadly about things that you have learned, could you tell us about anything you have learned about digital technology (or going online/using apps) that you find positive or helpful? Or maybe you learned things that are more negative, even harmful? Let’s start with the positives. What can you tell us?

Prompts:

- *Respond to negative experiences in a good way? Protecting yourself? How?*
- *Finding validation or getting recognition for yourself and how you are feeling?*
- *Recognising negative effects? Reducing them?*
- *Coping strategies (communicative, proactive and passive)?*
- *Needed social and emotional skills (e.g., self-regulation)?*
- *Searching, finding and evaluating helpful information or helpful people?*



- *Curating your feed?*
- *How to build a supportive connection or community with others online?*
- *Not being too competitive/self-critical/critical of others?*
- *Avoiding negative or extreme content? Protecting others?*
- *Time management? Taking a break? Finding a balance?*
- *Privacy?*
- *Reporting?*

16. Who or what helped you learn these things? Can you give an example?

Prompts:

- *People you know? (parents, siblings, peers, school ...)*
- *People online (e.g., influencers, instructional videos, interest groups)*
- *Platform specific? (YouTube, Instagram, TikTok ...)*
- *People I met due to my illness (or something like this)*

17. And now let's think about the negatives. Have you learned anything about digital technology that might have a negative effect on you or others?

Prompts:

- *New harmful habits or methods that result in spiralling down or being triggered?*
- *Ways to create or find negative or harmful content or activities?*
- *Finding and participating in secret groups where things can be upsetting or hostile?*
- *Ways to escalate problems or harmful situations?*
- *Any strategies to hide your problems from others?*

V. Support and help-seeking (10 mins)

18. Do adults understand why young people use TikTok or Snapchat to help get them through tough times?

19. Have you ever talked to other people about any difficult experiences you had online?

- If yes, with whom? Why them? [*Probe: offline or online communities; people you game with online; strangers; friends, parents, teachers, other family members.*] How did you experience the process of telling them?
- If no, why do you think you didn't tell anyone? Or why did it take you so long to share your experiences? [*Disclosure and support barriers/coping strategies.*]

20. Do the adults in your life understand about your digital activities and the experiences you might have online? [*Probe separately for therapist, parents, clinician, teacher, other helpful adults.*]

- Do they ask you about your digital experiences? Do you want them to ask about these? Or would you rather that they didn't know, or didn't ask? Why?
- What do you think about their digital knowledge and skills? Can they understand your experiences? Are they able to support you when you experience something problematic online?
- Have you ever tried to hide your digital experiences? From whom, and why? How do you do this (secret apps, keep phone private, delete messages ...)?
- Are there sources of help online that you know of? Do you think they can spot someone in trouble or feeling upset? What are the signs to look for? What could they do to help? Is the help offered actually helpful, in your view? If yes, what was helpful. If not, in what way/why not?
- What about using digital apps [*'digital first' approach to service delivery*]? Or is in-person help preferable, in your view? Why?

21. Who might be able to help?

- What should digital mental health services (e.g., Good Thinking and Kooth) be doing that Instagram or Twitter are doing?
- Industry/companies? Regulators? Schools? Therapist?



- Have you any messages for these? Or changes you want them to make? What do they need to understand better? Or do differently? How could sources of help be better signposted? Can you give an example of what has worked well? Or badly?

VI. Wrap up (5 mins)

- Before we finish the interview, is there anything more you think is important to share that would be helpful for others to know?
- How was it for you to talk about these things today? [*If distressed, provide follow-up as appropriate.*]

