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Report D7.1 Recommendations on Safety Initiatives

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EU Kids Online II

Enhancing knowledge regarding European children's use, risk and safety online

A Thematic Network Funded by the EC's Safer Internet Programme, 2009-2011

Report D7.1
Recommendations on Safety Initiatives

Brian O'Neill, Sharon McLaughlin

This report, prepared in November 2010, presents the findings for *EU Kids Online Deliverable D7.1: Recommendations on Safety Awareness Initiatives* to the European Commission Safer Internet Programme. It has been produced by the Work Package 7 team: Brian O'Neill and Sharon McLaughlin with members of the *EU Kids Online* network. This report accompanies and should be read in conjunction with *Deliverable D4: Core Findings.* Please cite this report as:

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1. EXECUTIVE SUMMARY - POLICY IMPLICATIONS

A central objective of EU Kids Online is to strengthen the evidence base for policies regarding online safety in Europe. Its findings regarding children's online experiences from across Europe offer an unrivalled opportunity to gain greater knowledge of European children's and parents' experiences and practices regarding risky and safer use of the internet and online technologies, thereby informing the promotion of a safer online environment for children. This chapter draws out in summary form the main implications for policy making and highlights significant issues arising from the findings of the survey, aligning them with existing initiatives where relevant in the distinct areas of risk and safety addressed.

Policy actors addressed include policy makers at the European level, the Safer Internet Programme itself; Safer Internet Centres in each of the countries; national governments who play an important role in regulatory oversight; schools as central providers of internet safety training and education; industry at both national and European level as service providers and developers of children's online content; and finally, children, young people and their parents as not only the targets for awareness-raising but who also have active roles in promoting and supporting safer internet practices.

1.1 Main policy priorities

Five main policy priorities arise from the findings of the EU Kids Online survey and which suggest new areas of interest and policy focus for the multiple stakeholders involved in policy making and implementation.

1. Parental Awareness

One important overall finding from the EU Kids Online survey concerns the lack of awareness that many parents have regarding risks children face online. 40% of parents, for instance, were unaware of their children's exposure to sexual images online; 56% did not know that their child had been bullied; 52% were unaware that their children had received sexual messages; and 61% had no knowledge of offline meetings their children had with online contacts. A significant challenge arises for policy makers however in addressing the gaps in understanding between parents and children about young people's experience online. At the same time, given that the household remains the most prominent location for internet use (87%), parents are best positioned to offer mediation and support for children online.

Parental awareness of risks and safety online needs to be enhanced. The priority for awareness-raising for parents should be on alerting parents to the nature of the risks their children may encounter online whilst encouraging dialogue and greater understanding between parents and children in relation to young people's online activities. Parents need to be alerted to the risks involved while avoiding an alarmist or sensationalist approach. Increasing parental understanding of the risks has to be a key focus for awareness-raising, particularly in those countries where awareness of children's risk experience is lowest.

At the same time, the role of parents in providing internet safety support is central, reinforced by the fact that the majority of internet use is at home and hence parents are the potential first point of contact when children experience difficulties online. **In order to assist them in this respect, emphasis should be given to the preeminent role parents occupy in supporting safer internet use for children.**

Parents' preferred sources of information on internet safety are firstly the child's school, followed by traditional media, other family and friends, ISPs and other online sources. The fact that the use of industry tools (safety information, abuse

buttons etc.) is low implies a lack of awareness and/or trust on the public's part. **Such awareness and trust is something that industry should seek to raise in order to improve take up of industry solutions by parents. Industry can also work closely with Awareness Centres to develop resources aimed at parents providing up to date advice on the latest technologies, risks and safety advice. Relevant stakeholders might also strengthen home-school initiatives such as training programmes, workshops and information dissemination.**

2. Focus on younger users

Children are going online at ever younger ages. Across Europe, one third of the 9-10 year olds using the internet go online daily. The average age of first internet use in some Northern European countries is seven. Younger children also lack skills and confidence in areas of internet use that are especially important for safety. **Accordingly, there needs to be a new policy focus on promoting awareness-raising and support measures designed to suit the needs of much younger internet users.** This means that not just secondary schools where the traditional focus has been but **primary schools need to develop new ways of reaching younger children as users of the internet providing age-appropriate training and advice.** Online resources aimed at younger children, for instance, must not assume reading competence. Teacher training also needs to equip teachers, particularly within the primary sector where it is relatively new, with the skills to support younger children.

3. Industry support for internet safety

The essential role of industry is consistently emphasised in European internet safety policy and expressed through self-regulatory codes developed to promote good practice in safer internet safety use. Based on the findings of EU Kids Online, there are a number of areas in which such industry efforts should be improved. **In keeping with existing industry voluntary codes, internet service companies, especially social networking providers, should provide the maximum amount of security and highest level of privacy by default for children using their services.** Children are not always able to use existing technical features and the number of children, for instance, who are able to change their privacy settings is less than the number with a social networking profile. There is also little evidence of availability of online information regarding internet safety: only 15% of children have received such information from online sources, and just 4% from ISPs. Nearly four in ten overall did not receive advice from any of these sources. There is a clear need for reliable and accessible online information and **industry should ensure that authoritative internet safety resources are prominently displayed and accessible. Information about safety features, for instance, should be available to all users and their parents before signing up to a service. Parental controls as well as technical tools to support blocking, reporting, filtering should also be a cornerstone of industry child protection policy with a need to increase awareness of such mechanisms and to improve their accessibility and usability to aid better take up by parents and children.**

4. Digital citizenship

Children and young people are increasingly going online independently of adult supervision. While the majority of internet use takes place at home (87%), 49% of young people go online in their own room. Moreover, 31% access the internet on a mobile phone and 24% on their own laptop. The widely promoted internet safety message of locating the PC used by children in a public space within the home remains important but is being overtaken by alternative means of internet access which are less amenable to adult supervision. Given the increasing trend towards more privatised use of the internet, the increasing prominence of mobile access, as well the ever younger age of children's first internet use, awareness raisers are consequently urged to focus efforts on developing self-protection and self-responsibility among children. **It is important, therefore, to encourage children to be responsible for their own safety as much as possible rather than rely on restrictive or adult forms of mediation. The focus of internet safety messaging should be on empowerment rather than restriction of children's usage, emphasising responsible behaviour and digital**

citizenship. Similarly, the development of policy, child safety practices and positive online content should also focus on children as a competent, participatory group.

Digital citizenship can also be supported through a focus on developing children's digital skills. While most children have a basic level of internet skills, more creative aspects of online activity are actually not as common as some more enthusiastic visions of children's online expertise. Only 16% of children spend time in a virtual world, and just 11% have experience of writing a blog. **Digital skills training therefore should also focus attention on broadening the range of activities undertaken specifically, more creative aspects including content development, to ensure children avail of all the opportunities for learning and communicating online.**

5. Positive Content

Less than one half (44%) of 9-16 year olds are very satisfied with levels of online provision available to them. Younger children are the least satisfied with the perceived quality of online provision – only 34% of 9-10 year olds say there are lots of good things for children of their age to do online. Teenagers, by contrast, are the most satisfied, presumably because they share in wider public provision.

At the same time, over half of European children aged 9-16 think that there are things on the internet that will bother children of their age. One in eight children say that they themselves have been bothered by something on the internet in the past year, a fact not recognised by all parents interviewed. On balance, while it may be said that children see the internet positively (90% think it true that 'there are lots of things on the internet that are good for children of my age'), the overall perception of negative aspects of the internet requires attention from policy makers.

There is a responsibility, therefore, on all policy actors to ensure greater availability of age-appropriate positive content for children. National initiatives, given the multi-lingual context of the internet across Europe are particularly important in this regard. Responses from children in several large language communities (France and Spain) were less than positive about the availability of high quality online opportunities suitable for their age. Locally produced content of relevance and accessible to children in their own language is an interest and concern of children and merits a strong response from regulatory and industry groups.

1.2 Action at regulatory and government level

Findings of the EU Kids Online survey highlight areas of action appropriate at the highest European and governmental policy levels, including the Safer Internet Programme's policy priorities and objectives. At a general policy level, it is recommended that

- **Cooperative arrangements with industry should be continued and strengthened to bring about more effective safer online practices, and to continue to monitor their implementation on an independent basis.** Specifically, based on the findings of this survey in the sections that follow, we identify opportunities for industry to develop greater positive content for younger children, greater support for implementing safety features in social networking sites used by children, as well as the role of industry in developing resources for digital safety education. At a policy level, evaluation of the effectiveness of self-regulatory approaches for industry needs to be maintained and implemented on an on-going basis.

- **Digital divides based on inequalities of access, usage and knowledge need to be further understood and addressed through policy action.** Children from high SES homes enjoy a wider range of access to the internet, especially at home, in their bedroom, and via handheld or mobile devices. Children from lower SES homes are more likely to be bothered or upset by online sexual or pornographic content, as well as more upset by receiving nasty or hurtful messages online and by seeing or receiving sexual messages.

- A digital divide is more pronounced in Southern and Eastern European countries where children are less likely to have the level of access enjoyed by children in other parts of Europe. Research has shown that parents' level of internet use is catching up with that of children in most European countries. However, children's use exceeds that of parents, conforming to the 'digital natives' model, in the Eastern European countries of Romania, Bulgaria, Poland, Lithuania and Turkey. **As such, targeted initiatives need to be undertaken, particularly in those predominantly Eastern Europe countries where parental use of the internet lags significantly behind that of children.**

- 21% of children have encountered websites containing potentially harmful user generated content such as sites containing hate messages, anorexic/bulimic sites, sites promoting self-harm or which discuss drug taking. Approximately 10% of children have experienced some form of personal data misuse. **Little is known about the effects of such experiences. The experience of mental health practitioners and allied professionals in this field may be valuable in addressing how such potentially negative features of children's online experience should be addressed through policy.**

At the national level, governments are responsible for legislative and regulatory controls, especially in relation to illegal content but also in relation to issues of protection of minors, data protection, ensuring freedom of expression and information, privacy, industry regulatory arrangements, educational policy and they are responsible for supporting internet safety initiatives at governmental level.

Many of the policy issues identified in this report as relevant at the European level apply also at national level.

- **Governments and regulators, for instance, can encourage the development of positive online content through production funding programmes and incentive schemes.**

- **While the density of ICT regulation at national level varies across Europe, the available degree of oversight or control that national governments have in relation to internet safety should be utilised to ensure effective regulation and evaluation of industry compliance with agreed codes of practice and national self-regulatory schemes.**

- The need for more extensive digital skills training and internet safety education arises directly from findings in relation to skills gaps, particularly among younger children, where on average children say they have just three of the eight skills asked about. **National governments should therefore ensure that digital skills and internet safety are prioritised within the national educational curriculum particularly in countries such as Turkey, Romania, Italy and Hungary where a skills deficit is particularly pronounced.**

1.3 Actions from industry

Industry – whether this refers to Internet Service Providers (ISPs), content developers, service developers, or representative industry associations – all have a crucial role to play in facilitating and promoting online safety. Industry also has a strong interest in ensuring children have positive experiences online. As participants in co-regulatory agreements and codes of practice, SNS providers, and mobile communications operators undertake to support internet safety through information dissemination, through technical supports and child protection policies.

- In the EU Kids Online survey, only 56% of children are able to change their privacy settings, as a core digital skill. **In keeping with co-regulatory agreements and codes, therefore, operators should provide the maximum amount of security and highest level of privacy by default for children using their services.**

- Given that one quarter (26%) of children aged 9-10 report having their own social networking profile, and with the likelihood that many of these are 'underage' for the services they use, **special attention needs to be given by SNS providers to the data protection and privacy issues surrounding the large number of younger children using SNS.**

- It is also clear, given the increasingly privatised use of the internet found in this survey, that children and young people will not always have adult supervision available. **Industry can assist in this regard by ensuring that**

prominent internet safety advice and user-friendly internet tools that encourage children to be self-governing should be promoted by all service providers.

- In response to the finding that just 44% of young people are satisfied with the provision of online content, **industry, including both public and private sector companies, is encouraged to develop more positive online content, especially for younger users. Awareness Centres and NGOs can assist in fostering partnerships with industry groups in developing dedicated content for younger children.**

- Despite the major policy emphasis on the use of parental controls or filters as a means of monitoring children's internet use, just one third of parents actually use them. **Industry developers can support greater uptake of such tools by developing more innovative approaches to the development of parental controls that are effective and meet the needs of parents and children.**

1.4 Actions related to awareness-raising

Awareness-raising is a central element of European internet safety policy and INSAFE's extensive network of Awareness Centres is the principal platform by which internet safety is promulgated. Many of the issues arising from findings in the EU Kids Online survey unsurprisingly relate to awareness-raising activities, relating variously to the form and content of internet safety messaging, priority target groups and areas of risk that require particular attention.

A general theme arising from the survey's findings is that empowerment rather than restriction of children's usage and activities online is likely to be a more effective focus of internet safety messaging. Given the increasing trend towards more independent and privatised uses of the internet through increasing mobile access, as well the ever younger age of children's first internet use, Awareness Centres may need to focus efforts on fostering a sense of self-responsibility among children while targeting. Specific safety messages with regard to mobile devices and other platforms are required as is a special focus on younger children as internet users and with appropriate resources tailored to their needs.

The following emerging trends regarding internet usage also imply new areas of focus for awareness-raising:

- Nearly one quarter of children report one or more experiences associated with excessive internet use rising to over a third of 11-16 year olds in countries such as Estonia and Portugal. **Greater awareness, therefore, of the potential dangers of excessive internet use should be incorporated into internet safety awareness-raising initiatives.**

- About 12% of children access the internet in cybercafés or other public locations. This is particularly important in countries with less home access. **As such internet safety advice should also be available in those public locations for internet access used by young people (internet café, public library etc.) and safety messages should be prominently displayed for internet users. A case may be made for regulation of venues offering public internet access with responsibility for provision of internet safety provision placed on owners and service providers.**

In relation to the content of internet safety messages and awareness-raising campaigns, specific issues arising from the findings of the EU Kids Online survey include the following:

- In recognition of the children who have been bothered by something on the internet in the past year (12% of all children), schools and parents should reinforce the importance of reporting abuse while also encouraging children and young people to speak to an adult when they come across upsetting content.

- The most common way in which children come across sexual images online is through images that pop up accidentally (7% of all children; 12% of 15-16 year olds). **In order to avoid such accidental exposure to any unwanted content online, safety awareness messages need to give greater emphasis to the filter and safety settings of browsers and websites (including search engines and video hosting sites), informing parents and children about how to block such content.**

- The easy availability of pornography online causes much public debate and anxiety with respect to children's use of the internet. The finding that the internet is now the most common way for children to see sexual images (14%), marginally more than on television, films or videos (12%), may fuel further concern in this regard. The only observable

gender difference is that teenage boys are more likely than girls to see pornography on websites, suggesting that when it comes to teenage boys, there is at least some degree of deliberate exposure, at least for a minority (24%). **The principal implication arising is that safety messaging should be measured in approach, avoiding implications of harm and seeking to empower parents and children to talk about the subject of sexual images online.**

With regard to wide concern about cyberbullying, a number of specific implications arise for awareness-raising policy. Social networking and instant messaging are the most common online channels in which children are the targets of nasty or hurtful messages. As such, awareness-raising should focus on SNS sites and IM. Given that 12% of children also report that they have bullied others, education programmes should address the child as both victim and perpetrator.

- **Given that face to face bullying was found to be more common than cyberbullying, anti-bullying messages should avoid over-sensationalising online features.**
- **Awareness-raising in countries where bullying is more prominent should prioritise this as one of the key risks of children online.**

Of the 6% who have been bullied online, this is fairly upsetting or very upsetting for over half (54%), more so for younger children for whom the effect was longer lasting and for children from lower SES homes. Bullying is rarely trivial, in other words, and more vulnerable children need targeted supports to enable them to cope more effectively. With regard to internet-specific responses to cyberbullying, deleting the hurtful messages and blocking the person who sent the hurtful messages was seen by children as being effective. Blocking unwanted contacts is clearly beneficial and should be encouraged. However, children require the knowledge and confidence to do this. The small proportion that changed their filter settings (18%) or reported the problem online (9%) suggests that such technical features require greater promotion on the part of service providers as well as better training in digital skills programmes. In summary:

- **Internet safety awareness dealing with cyberbullying should include responses and coping strategies targeted at children of different ages, enabling them to cope with situations that may arise in online communication and social networking.**
- **Awareness Centres and educational authorities should provide teachers with resources enabling them to be alert to, and be able to respond to, incidents of cyberbullying.**

With respect to some of the targeted messages that may be needed:

- A quarter (25%) of the children who have received sexual messages were bothered by this. Girls, younger children and children from lower SES homes appear to be more affected and it is these groups who should be the main target of policy interventions. **Internet safety for older children should also foster an understanding of privacy and the harm, inadvertent or otherwise, that can be caused by sexual messaging.**
- **Since Instant Messaging and social networking sites are the most common platforms for encountering sexual messages online, educational and awareness-raising initiatives should focus on these.**
- There is an overall under-utilisation of parental controls, with just under a third (28%) of parents preferring to use these. **Awareness Centres are well positioned to disseminate information about parental controls and ensure that information for parents about available technologies and services is available in an accessible and user-friendly form.**

1.5 Education and schools

Schools are uniquely placed to address all children on internet safety and are regarded by parents as the most trusted source of information about internet safety information. Schools, as the second most common location for going online after the home, also provide children with important access opportunities. The pivotal role of schools in supporting ICT education and internet safety as such needs to be adequately resourced. Teachers and other educators are charged with

considerable responsibility for digital skills and e-safety education and need to be supported to carry out this role. Actions relevant to the educational system include:

- With the age of first internet use as low as seven, **schools need to develop new ways of reaching younger children as users of the internet providing age-appropriate training and advice.** Teacher training needs to equip teachers, particularly within the primary sector where it is relatively new, with the skills to support younger children.

- Schools should provide special programmes aimed at educating and including those who do not have Internet access outside schools, making sure they do not miss out on peer-group opportunities and have sufficient skills.

- While most children have a basic range of skills relating to safe practices online, there are clear gaps particularly in relation to skills concerning privacy settings, the focus of extensive awareness-raising campaigns. **Digital skills training for young people needs to be emphasised on an ongoing basis, to include both internet safety skills as well as more creative aspects of internet use, to ensure that all children reach a minimum basic standard.**

- The significant proportion of children (26%) reporting that their social networking profile is public so that anyone can see it raises a number of public concerns. More restrictive privacy settings may, from the child's point of view, be associated with inhibiting the expansion of one's list of contacts. Therefore, advice regarding privacy settings must carefully balance children and young people's desires to socialise and interact online whilst prioritising keeping safe. **Education should pay particular attention to the child's self-management of online content and behaviour, enabling young people to become more critically aware of the benefits and risks associated with posting content online.**

- **Significant potential for peer-to-peer education and intervention programmes in appropriate settings including schools has been identified in this survey.** For instance, of those children aged 9-16 who had been bothered by seeing sexual images online, it was more likely that they would tell a friend about the last time it happened (33%). An even greater number (37%) confide in a friend if bothered by sexual messages they'd received.

- With reference to cyberbullying, the low proportion of children who had been bullied who told a teacher (7%) raises questions as to why the educational environment is not conducive to dialogue. **Teachers need to be alert to the risks of bullying online and to be able to respond when incidents arise.**

- Parents express a clear preference for schools as the best source of safety information (43% over and above other sources of information). **In order to support and develop the effectiveness of parental mediation, schools should strengthen home-school initiatives such as training programmes, workshops and information dissemination.**

1.6 Issues and advice for parents

The need for greater levels of parental awareness of risks faced by children online is referred to above. A priority for awareness-raising for parents should be on alerting parents to the nature of the risks their children may encounter online whilst encouraging dialogue and greater understanding between parents and children in relation to young people's online activities.

Specific advice for parents includes:

- **As they are not always available or able to supervise their children's online activities, parents should seek to promote self-management skills for their children.**

- **Parents should discuss issues of excessive internet use with their children and agree limits of screen time and internet use at home.**

- With a significant proportion of children (26%) reporting that their social networking profile is public, **parents should discuss privacy settings with their children, being respectful of their children's privacy while being alert to the risks involved.**

- Face to face meetings with online contacts has been a matter of policy concern. In the EU Kids Online survey, 11% of children who had gone on to meet new people offline were bothered by the experience. Significantly, 31% of 9-10

year old children were bothered or upset by some aspect of it. **This suggests that, despite the relatively low occurrence of such meetings, contact risks should remain a priority in child safety strategies and parents, teachers and other responsible adults should be made alert to the risks involved.**

- Parents should encourage their children to experience positive content online and to develop digital skills through participation.

2. OVERVIEW

2.1. Introduction to the report

The *EU Kids Online* survey of 9-16 year old children and their parents provides detailed evidence of young people's online experiences across 25 European countries. It is intended to facilitate informed discussion about how to support digital inclusion for young people and enhance greater internet safety. The topic of online opportunities and online risks for children has received increasing attention from governments, regulators and civil society in general. There has been concerted action in many countries to support better access to the internet for children through investment in school's infrastructure and educational programmes. Substantial awareness-raising efforts have also been made to embed internet safety in all aspects of children and young people's online activities.

The findings of this research suggest that some of these efforts have been successful.[1] 93% of 9-16 year old users go online at least weekly. 60% go online everyday or almost everyday, illustrating just how thoroughly the internet is now embedded in children's lives. Two thirds of 9-16 year old children claim more digital skills than their parents; over 80% of 15-16 year olds have a social networking profile; and most children say they can find safety information online. However, with reference to the focus on risk and harm reported in D4, *Risks and Safety on the Internet – the perspective of European children,* there are findings that will be a cause of concern to policy makers. These will have implications for future strategy. Children are going online at ever-younger ages and many of these younger children lack the skills and confidence to be safe and responsible users of the internet. Internet use is diversifying, often outside parents' supervision. And worryingly, parents are often ignorant of the risks experienced by children in their digital lives.

In this report, *Deliverable 7.1 Recommendations on Safety Awareness*, we assess and identify the implications for policy makers and other stakeholders involved in internet safety, arising from the findings of the *EU Kids Online* survey regarding children's usage and activities online as well as their experience of risk and harm on the internet. Key findings of the EU Kids Online survey are mapped against existing policy initiatives as well as current policy debates, as documented in our Stakeholders' Forum.[2] Implications for policy makers are discussed, identifying actions that relevant actors – the state and regulatory system, the educational system, awareness-raising groups – may take at national and at European level.

2.2. The policy context

The policy agenda of the EC Safer Internet Programme (SIP) provides a reference framework for children's use of the internet as researched by *EU Kids Online*. The aims of the Safer Internet Programme are to empower and protect children and young people online by awareness-raising initiatives and by fighting illegal and harmful online content and conduct.[3] Measures under the SIP include: support for INSAFE's network of Awareness Centres across the 27 European countries of the European Union, who develop and promote information/awareness-raising material; the INHOPE network of Hotlines across Europe which receives and processes reports of illegal content found on the Internet; youth panels who are consulted on safer Internet issues and information material; as well as support for a variety of NGOs active in the field of child welfare online, cooperation with law enforcement agencies and with academic researchers and support for enhancing the knowledge base.

Internet safety policy in Europe has favoured a combination of co- and self-regulatory measures towards internet development, safety and security, balancing opportunities and advantages of widespread internet use with actions to minimise its risks and downsides. This can pose a number of dilemmas for policy makers and legislators. Insufficient evidence on the scale of the problems faced has to date limited the building of consensus on policy objectives. At a fundamental level, *The Digital Agenda for Europe* provides the roadmap for policy to maximise the social and economic potential of ICT and specifically the internet in order to create a flourishing digital economy by 2020.[4] The *Digital Agenda*

includes measures to promote the building of digital confidence, digital literacy skills and inclusion, and to promote cultural diversity and creative content.

Digital competence, including an understanding of how to be safe online, is also recognised in other aspects of European policy. It is one of eight key competences of a European framework for lifelong learning.[5] It underpins the policy supporting media literacy for all.[6] The European Commission has adopted policy guidelines calling on EU countries and industry to promote media literacy across Europe through activities that help people access, understand and critically evaluate all media they are exposed to, including TV and film, radio, music, print media, the internet and digital communication technologies. Its key features include using social networking sites safely, greater awareness of the risks associated with the spread of personal data, and the ability to protect one's privacy.

The increased hazards of the internet age have also received high level policy and political attention. For over 10 years, the Safer Internet Programme has led efforts to promote safer use of the internet and ICT, to educate users and to fight against illegal content and harmful conduct online. The current programme (2009-13) encompasses newer web 2.0 internet services, such as social networking, and illegal content and harmful conduct such as grooming and bullying. Its objectives remain to increase public awareness, to increase support for reporting mechanisms, to establish and support information contact points, while continuing to foster self-regulatory initiatives in the field.[7] As affirmed in the Prague Declaration (2009), the EU has committed to more direct co-ordinated inter-governmental action to combat illegal content and to minimise risks to internet users.[8] As a result, the European Commission has made proposals for adoption of a new directive on combating sexual abuse, sexual exploitation of children and child pornography (European Commission 2010).[9]

The range of risks assessed in the EU Kids Online survey has featured in policy circles, to a greater or lesser degree, and a number of them have been the focus of considerable multi-stakeholder initiatives. EU Kids Online I noted the major gaps in evidence and research, the findings in this report now allow some degree of evaluation of the effectiveness of initiatives to date and seek to inform an evidence-based, proportionate policy framework in relation to keeping children safe on the internet.

2.3.   The policy agenda of risk, harm and internet safety

The policy agenda concerning risks and safety for children on the internet is a complex and contested area. It encompasses conflicting approaches and inconclusive evidence regarding the scale of the problems faced and uncertainty regarding the effectiveness of proposed solutions. It also gives rise to considerable public anxiety, particularly given sensationalist media coverage of the most extreme forms of risk and harm.

A guiding principle of policy discourse on children and the internet, and of the Safer Internet Programme, is that of the need to balance *empowerment* and *protection,* to *maximise opportunities* whilst *minimising the risks* of internet use. According to this principle, any approach to teaching children to become safe and responsible users of the internet and related technologies must attempt to strike the balance between, on the one hand, maximising the opportunities afforded to children by the internet and, on the other hand, minimising the risks of harm posed by such technologies. In other words, policymakers, parents, schools and others with a vested interest in teaching children to become safe and responsible users of the internet (and related technologies) must adopt a balanced approach – the objective of minimising the risks of harm to children must be weighed against the countervailing objective of maximising the benefits afforded to children.

There is an inherent dilemma and challenge in this: promoting online opportunities without careful attention to safety may also promote online risk; but measures to reduce risk may have the unintended consequence of reducing opportunities.

In the following, it is recognised that adult perceptions of risk often differ from those of children. For this reason, regulatory and other approaches directed at the protection of children in this context need to be based (to as great an extent as possible) on evidence as opposed to assumption. Actual evidence of the risk of harm becomes even more important

when one considers that measures (regulatory and otherwise) directed at the protection of children in this context commonly involve restricting (even sometimes prohibiting) children's access to certain types of content. In other words, such measures have obvious implications for *children's and human rights* and thus the actual need for such measures should be capable of being objectively justified.

Policy attention has over the past decade begun to shift from content-related risks (e.g., exposure to pornographic and violent content) to contact and conduct‑related risks (e.g., grooming and cyberbullying). Arguably, this shift in focus is reflective of children's changing role in this context (i.e., the context of the online environment). Children are no longer mere consumers of content but are also creators of content. Approaches to teaching children to become safe and responsible users of online technologies must take account of children's roles as *consumer, participant* and *creator*.

It is important to recognise also that notions of "good" and "bad" are largely subjective and are contingent on a diverse array of factors including age, level of maturity, personal and societal value systems and religious beliefs. In other words, individual conceptions of "good" and "bad" are influenced and informed by various personal, community and societal factors. Safety awareness campaigns and initiatives need to deliver this message to parents, schools and policymakers. An understanding of the subjective nature of "good" and "bad" will undoubtedly facilitate the adoption of a more measured approach to teaching children to become safe and responsible users of the internet and related technologies.

It is also the case that distinguishing between "risk" and "opportunity" in any definitive way also presents challenges. Risks and opportunities are similarly influenced and informed by a diverse range of personal, community and societal factors – as well as being informed and influenced by the consequences arising from having engaged in (or having been exposed to) certain activities and behaviours. Safety awareness campaigns and initiatives should make it clear to parents, teachers and policymakers that "risk" and "opportunity" in the context of the online environment are (like notions of "good" and "bad") dependent on an array of factors. As stated above, an understanding of the degree of subjectivity involved in the delineation of "risk" and "opportunity" will assist in the adoption of a more balanced approach to teaching children to become safe and responsible users of the internet and related technologies.

2.4. The internet safety landscape

The 25 countries included in the *EU Kids Online* survey comprise a range of European countries varying in geography and politics from each part of the European continent, primarily members of the European Union but also including an EEA country, Norway, and Turkey as exceptions. Countries vary in size, with both large and small population sizes included. They also differ in terms of internet usage with representative countries both above and below the European average, and in terms of online risk factors derived from research in EU Kids Online I designating countries of high, medium and low risk.[10]

Another dimension in which countries vary is in terms of their support for internet safety. All countries, with the exception of Turkey, are members of INSAFE, the European network of national Awareness Centres, supported under the Safer Internet Programme, and designed to raise internet safety awareness at a national level.[11] At a national level, Awareness Centres typically work with a broad range of partners such as schools, libraries, youth groups and industry to promote internet safety. In practice, however, there is a lot of variation. As identified in the report of the Stakeholders' Forum for EU Kids Online, countries vary in terms of the degree of government interest in internet safety, the existence of statutory or other regulatory bodies with responsibility for its promotion, as well as the support offered by schools, NGOs and other groups concerned with child protection and children's welfare. Government involvement, for instance, can include specific initiatives directed at internet safety, media education, or the distribution of internet access. Alternatively, it can refer to broader social policy with respect to children, family and youth affairs. Legislative provision varies substantially across Europe and adds to the complexity of dealing on a pan-European level on matters that will include data protection and privacy, copyright, protection of minors and so on. Stakeholders in Romania and Turkey reported that there was no real national policy on internet safety, whereas in countries such as the UK and Ireland, internet safety has been the subject of sustained public interest and engagement for many years.

The education map across Europe is similarly varied. According to the Education, Audiovisual and Culture Executive Agency (EACEA), internet safety education is present in the school curriculum in 24 countries/regions.[12] However, the means of its implementation varies considerably. In eleven of 30 countries surveyed, internet safety was not part of the school curriculum. In some countries, schools had local autonomy over whether to include it as part of their overall provision. Internet literacy is also a very recent development for most systems and, in 80% of countries, internet safety was first introduced as recently as 2007. Teachers responsible for teaching internet safety do not always have specific training and in many cases it is general subjects teachers who are given the task. There is also substantial variation both as to the content and the curriculum framework within which it is implemented. Also worthy of note is the high degree of variation in cooperation between schools and Awareness Centres. Ministries of Education or other Educational Authorities are normally represented in the national Safer Internet Centres supported by the Safer Internet Programme, though in practice the level of cooperation varies considerably.

Finally, the involvement of industry in internet safety policy merits discussion. Self-regulatory agreements are the principle means by which regulatory and other stakeholders work with industry developers and providers to enhance provision for and awareness of internet safety. At European Commission level, forms of industry co and self-regulation have been the preferred approach to regulation of technologies and content. The EU's 1998 Recommendation on the Protection of Minors and Human Dignity (despite the fact that the term co-regulation does not appear in the recommendation) is regarded by some (Lievens et al.) as co-regulatory as opposed to self-regulatory in nature. The EU's 2006 Recommendation on the Protection of Minors and Human Dignity makes several references to co-regulation, stating that "[o]n the whole, self-regulation of the audiovisual sector is proving an effective additional measure, but it is not sufficient to protect minors from messages with harmful content." Lievens et al. argue that the 2006 recommendation is indicative of a palpable shift from self-regulation to co-regulation. Also, the 2007 Audiovisual Media Services Directive (AVMSD) advocates both self- and co-regulation.

With the fast pace of change in internet and mobile technologies, industry groups themselves are deemed to be in the best position to keep up with the latest technologies and trends of use. Consequently, the Commission has favoured industry-led codes and agreements to deal with any issues of risk, safety, and child protection that might come up. The *European Framework for Safer Mobile use by Young Teenagers and Children* is an example of a self-regulatory agreement signed by mobile operators in 2007 setting down principles and measures that members commit to implementing at a national level.[13] The Commission monitors its implementation, noting compliance and evaluating its effectiveness through a series of commissioned reports.[14] Similarly, *Safer Social Networking Principles for the EU* is a voluntary agreement incorporating guidelines for the use of social networking sites by children signed by most of Europe's major social network providers.[15] The principles provide for awareness-raising concerning internet safety, developing age-appropriate services, default settings to ensure maximum levels of privacy and protection, easy to use report mechanisms, and procedures to deal with user reports of illegal or harmful content. Again, implementation reports monitor progress in complying with the principles. In 2010, it was found, for instance, that most social networking sites do provide safety tips and tools to control their content and profile settings. However, major gaps were found in default privacy settings, searchability, and reporting procedures.[16]

At the ISP level, a similar approach towards industry-wide voluntary self-regulation operates. At a national level, Internet Hotlines report illegal content. Industry associations frame acceptable use policies and negotiate on behalf of the sector with government regulatory agencies and law enforcement. Internationally, the INHOPE Association has acted to support and enhance the performance of Internet Hotlines around the world through exchange of information and expertise, establishing best practice in responses to reports of illegal content and liaising with government, law enforcement and regulatory bodies.[17]

3. POLICY IMPLICATIONS

3.1. Usage

The *EU Kids Online* survey of 9-16 year olds and their parents provides new research about how children use the internet, providing important evidence about the changing contexts in which children are exposed to risks, the increasingly young age at which children start to use the internet, and the diverse technologies that are used. Such findings assist in guiding policy in a fast changing environment to ensure that appropriate safeguards are in place for children. Following the order in which findings are presented in the report *Risk and Safety on the Internet,*[18] policy implications are outlined below noting in bold recommendations relevant to distinct target groups and policy actors.

Policies on digital inclusion, as well as media literacy for all, provide important frameworks at the European level for assessing findings in relation to children's online use. E-inclusion policy at a European level has been articulated principally through the EC Ministerial Riga Declaration[19] – committing to an inclusive and barrier-free information society – and the objectives of the *Digital Agenda*, Europe's digital policy successor to i2010 (European Commission 2010). [20] This policy, not specifically addressed to children, provides for the, building of digital confidence, guaranteeing universal broadband coverage and access, enhancing digital literacy, skills and inclusion, and promoting cultural diversity and creative content.

A key objective of the Digital Agenda is to enhance digital skills. Recognising the dangers of a growing digital literacy deficit and the exclusion of citizens from the digital society and economy, an objective of the Digital Agenda is to ensure that background or skills are not a barrier to attaining Information Society objectives.   Digital competence is identified as one of the eight key competences that are fundamental for individuals in a knowledge-based society, as is the knowledge and understanding of how to be safe online.[21]

European Commission policy on media literacy provides another relevant framework The development of a comprehensive set of indicators as part of the strategy to report on levels of media literacy, as provided for under the Audiovisual Media Services Directive (AVMSD), will act as an important benchmark for assessing varying levels of technical and critical media literacy skills across Europe.

Where children use the internet

While most children use the internet at home (87%), many in a public room (62%), nearly half (49%) go online in a private room where it is difficult for parents to monitor their internet usage. This makes it imperative that safety awareness campaigns and initiatives reach children themselves. In other words, in circumstances where parents are unable to act in a supervisory role, children (in particular, older children) must be empowered to self‑govern. It is therefore essential that parents, teachers and safety initiatives, and media literacy initiatives impart information in a child- and teenager-friendly fashion, encouraging safe and responsible use outside of adult supervision.

- **Accordingly, Awareness Centres should focus efforts on developing self‑protection and self‑responsibility among children.**

- **Industry service providers should likewise provide prominent internet safety advice and user-friendly internet tools that encourage a self-governing approach.**

- The fact that school or college is the second most common location for going online (63%) means that the educational system has an important role to play in internet safety awareness. **Schools and the wider educational community are uniquely placed to address all children on internet safety and need to be resourced to do so.**

- **Schools are also important ensuring that those who do not have access at home develop skills and have the same digital opportunities as other children.**

- **Internet safety advice should also be available in the other public locations for internet access (internet café, public library etc.) used by young people and safety messages should be prominently displayed for internet users.**

How children access the internet

The fact that most children (58%) still access the internet via a shared personal computer reinforces the role of parents and other adults as being in the best position to monitor children's access and usage. However, with increasing evidence of a trend toward personalised and mobile access to the internet via their own laptops (24%) or a handheld or portable device (12%) – more evident in some countries than others and among older children from higher SES backgrounds – means that children themselves have to be the principal target of internet safety messaging with an emphasis on empowerment and digital citizenship.

Internet use and social networking via mobile platforms and devices is likely to increase, making initiatives such as the *European Framework for Safer Mobile use by Young Teenagers and Children* particularly important.[22] Adoption and compliance by the mobile communications sector should be independently evaluated with further input from stakeholders on effective child protection measures.

In summary, key implications arising from findings of how children use the internet include:

- **The role of parents in promoting internet safety among younger children is particularly important. Empowerment rather than restriction should be the focus of internet safety messaging, emphasising children's responsible behaviour and digital citizenship.**

- **Focus on children as a competent, participatory group also in the development of policy, child safety practices and positive online content**

- **Awareness Centres should develop specific safety messages with regard to mobile devices and other platforms.**

- **The Commission should consider independent assessment of the *European Framework for Safer Mobile use by Young Teenagers and Children***

How much children use the internet

Children, it is clear, are going online at ever-younger ages and this has very significant implications for policy. On average, children go online from the age of nine and even younger in many countries. As such, a new focus on younger children as internet users is required while also sustaining existing efforts for older children. This has implications for awareness-raising and education:

- **Awareness-raisers need to develop a special focus on younger children as internet users and tailor resources accordingly.**

- **Schools should develop new ways of reaching younger children providing appropriate teacher training at both the primary and secondary level.**

- **Specific guidance for parents of younger children should also be developed to enable them to support internet safety education at home.**

The report finds that children's internet access and usage differs between children from low SES and high SES homes – the levels of usage and access being considerably higher for those from high SES backgrounds. Children from low SES homes are less confident that they know a lot about the internet than those from high SES homes. **The implications for**

policy point quite clearly to persistence of a digital divide based on inequalities of access, usage and knowledge. Further research is required to assess how and to what extent children's socio‑economic status impacts upon their Internet access and usage.

With regard to frequency of use, particular attention should be given to the features of online communication, given that children who use social networking or other forms of online social interaction will be more likely to access the internet more frequently than children who use the internet for other purposes. Given that frequency of use is directly connected to levels of benefit and risk, it is important that parents (and others with a vested interest in teaching children to become safe and responsible Internet users) are made aware of the possibility that children who use the internet for communication and networking purposes may experience increased opportunities and risks as a direct result of their more frequent use of the Internet.

Digital literacy and safety skills

There are significant gaps in digital literacy and safety skills among children in Europe. One third are confident and display a good range of skills, but a further third are not. There is significant geographical variation and substantial numbers (around 40%) lack basic safety skills such as blocking messages, finding safety information or changing privacy settings. **Consequently, digital skills training for young people should continue to be emphasised and common standards should be implemented in training, safety features, and applications.**

Younger children should be a special focus for digital skills training. Although sizeable numbers of 9‑10 year olds use the internet, they have little confidence that they know much about it. While skills and knowledge needs to be age-appropriate, younger children need special support not just in relation to internet safety but also in relation to the more technical, practical dimensions of internet use.

Excessive use of the internet

Time spent online is a matter of growing public concern and in some countries nearly one third of all children have experienced one or more forms of excessive internet use. The final report of EU Kids Online had identified 'internet addiction', or excessive internet use to the detriment of other aspects of daily life, as one of several key gaps in the evidence base of research on internet safety issues for children and young people. Internationally, concerns about its links to depression,[23] about its prevalence in the context of gaming, particularly for younger children,[24] and its impact on social life and school performance[25] now feature in a growing public debate about the phenomenon. Responding to the research finding that many children are exposed to excessive screen time both at home and while at child care, with 66% exceeding the recommended daily amount, the American Academy of Paediatrics (AAP) has reiterated its recommendation that parents limit combined screen time from television, DVDs, computers, and video games to 2 hours per day for children.[26]

In the findings of EU Kids Online, about one third of children say they have spent less time than they should with friends, family or doing schoolwork. A similar proportion has tried unsuccessfully to spend less time on the internet and feel bothered when they can't be online. For a minority, then, there are adverse effects of internet use, which require the attention of policy makers. While further research will be needed to explore the relationship between excessive screen time, internet use and risk, immediate implications for policy makers include:

- **Greater awareness of the potential dangers of excessive internet use need to be incorporated into internet safety awareness-raising**

- **Parents should be encouraged to discuss the topic of excessive internet use with their children and to agree limits of screen time and internet use at home**

- **Children should be taught self-management skills regarding their use of the internet**

Parental use of the internet

While parents are catching up, the EU Kids Online survey finds that, in most countries, children make considerably more use of the Internet than their parents and that this difference in levels of usage may compromise parents' ability to effectively manage children's internet use. Assumptions about parents' abilities to mediate their children's internet use may be unhelpful and instead require further investigation.

As noted above, the majority of children (87%) use the internet at home – placing parents in the best position to mediate children's internet use. It is crucial, therefore, that parents are encouraged and incentivised to become actively and meaningfully involved in the online endeavours of their children. How? Firstly, parents need to be made aware of the importance of their role when it comes to mediating their children's internet usage. Secondly, parents (particularly those lacking confidence in ICT‑related matters) need to be afforded real, practical opportunities to learn about the internet and related technologies. A crucial prerequisite for parental mediation of children's internet usage is the creation of an environment conducive to dialogue – parents (particularly those lacking confidence in ICT‑related matters) can learn much from their children (about both the internet itself and their children's usage of this technology).

The main policy implications concerning parental use of the internet are the following:

- **Targeted initiatives should be undertaken, particularly in those countries (predominantly Eastern European countries such as Romania, Bulgaria, Poland, Lithuania and Turkey) where children's use of the internet exceeds that of their parents, to support the attainment of digital skills and internet safety awareness**

- **The crucial role of parents in internet safety awareness needs to be highlighted**

3.2. Activities

Range of children's online activities

Some of the first systematic findings across Europe for the range of online activities conducted by children provide a valuable insight into the kinds of opportunities taken up, the benefits that children derive from going online as well as the context in which online risks may occur. The finding that use of the internet for school work is the top online activity (85%) in part reflects the extensive investment in school's infrastructure and the fact that it is almost a universal feature of young people's usage – perhaps not in preference to young people's interests in communicating online but certainly very widely undertaken. This strongly confirms the importance of incorporating the internet into all educational contexts, curricula and teaching practices, maximising the learning opportunities and benefits for children. In this context:

- **The pivotal role of schools in supporting ICT education and internet safety needs to be formally recognised and supported.** Teachers and other educators are charged with considerable responsibility for digital skills and e-safety education. **It is the responsibility of the State and others with a vested interest in teaching children to become safe, responsible, creative and productive users of ICT to ensure that schools are adequately resourced to carry out this role.**

Use of the internet for gaming, watching video clips and communication purposes are the next most popular activities and presumably constitute a very significant part of young people's leisure and entertainment activities. These likewise represent very important opportunities and benefits for children to learn and solve problems through interaction, gameplay and communication. **The acquisition and development of greater digital skills enhances these positive attributes and minimises risks and should be encouraged.** A more surprising finding is that the more creative and participative aspects of internet use – Web2.0 features such as posting images, writing a blog, using virtual worlds – are not more common, despite the many claims for user generated content. These may be opportunities lost and consequently **digital**

skills training should focus attention on broadening the range of activities undertaken, specifically, more creative aspects including content development.

Perceived quality of online content

The lack of quality online content, particularly for younger children is a matter of major public policy concern. Only 34% of 9-10 year olds say there are lots of good things for children of their age to do online. The Safer Internet Programme has taken a lead in promoting the development of positive online content for children. A European Award for Best Children's Online Content, organised jointly by Safer Internet Centres in 14 Member States and the Safer Internet Programme, aims to encourage the production of quality online content that aims to benefit children in some way.[27] Guidelines published by the European Commission also provide a valuable resource for developers of content or services that are either specifically aimed at children or which are popular with children and young people.[28] This is an important initiative and should be supported and emulated at national level.

Industry has a significant role to play in this context:

- **Public service media companies have much of the expertise required to develop media content for children and as part of their public service remit should be encouraged to develop greater online content, especially for younger users.**

- **NGOs can similarly play a role in fostering partnerships with industry groups in developing dedicated content for younger children.**

- **Governments and regulators can encourage development of positive online content through production funding programmes and incentive schemes.**

Children's use of social networking sites (SNS)

The rising popularity of social networking among young people and the inherent attractiveness of its online communication, networking and content generation functions for children make the safety dimensions of this type of internet service a matter of particular concern to policy makers. 59% of European children use social networking sites and over 82% of 15 to 16 year olds have their own profile. Its benefits for communication, social interaction and sharing of content are well established. However, concerns about young people's ability to manage privacy settings, the consequences of publishing content online and the growing popularity of SNS with ever-younger users give rise to some serious concerns.

The European Commission's *Safer Social Networking Principles*, a voluntary code of practice published in February 2009 agreed by 20 major social networking providers, acts as the main vehicle by which safety concerns for children are addressed and monitored.[29] To date, evaluation of the implementation of the voluntary code shows varying degrees of compliance in terms of provision of safety measures. 19 out of 23 sites, it was found, provide safety tips and information targeted towards children and/or teenagers but the transparency with which information on privacy settings was made available left substantial room for improvement.[30]

The significant proportion of children (26%) reporting that their profile is public so that anyone can see it raises a number of policy concerns. From the child's point of view, restrictive privacy settings may be associated with inhibiting the expansion of one's list of contacts. Information and internet safety messages regarding privacy settings, therefore, must carefully balance children and young people's desires to socialise and interact online whilst prioritising keeping safe.

Girls, and children from lower/medium SES homes, appear more likely to keep their SNS profile private. If having one's profile public is linked to the risk of inappropriate contact, then it is boys and children from higher SES backgrounds who should be targeted by awareness‑raising. Those involved in awareness‑raising must be careful how they address issues related to inappropriate contact. The objective must be to empower children and parents (and others with responsibility for

the well‑being of children) to recognise and manage the risks without engendering fear that would ultimately inhibit children's internet usage.

In the context of social networking, a number of key implications arise for the Commission monitoring process, for industry SNS service providers, and for awareness-raising efforts in relation to social networking:

- **The number of children who are able to change their privacy settings, as a core digital skill, is lower than the percentage children with a social networking profile. Digital skills programmes should include a focus on technical features and skills associated with privacy settings and management of SNS profiles.**

- **As per EU Safer Social Networking Principles, operators should be encouraged to provide the maximum amount of security and highest level of privacy by default for children using their services.**

- **For parents, information should advise about how best to talk to children about their privacy settings, respectful of their privacy but being alert to the risks involved.**

- **Information about safety features should be available to all users and their parents before signing up to a service.**

- **Educationalists and those providing digital skills training should pay particular attention to self-management of online content and behaviour, enabling young people to become more critically aware of the benefits and risks associated with posting content online.**

- **Special attention needs to be given to the data protection and privacy issues surrounding the use of SNS by children, including underage children.**

Children's approach to online communication

There is a need for a measured approach to young people's online behaviour and it is important that online communications – including online communications with strangers – are not portrayed as something that is inherently and resolutely risky. The objective, as stated above, of any safety awareness programme is to empower through education, not to inhibit through fear. Education and digital skills programmes should incorporate specific reference to skills of communicating and managing social interaction online

Online communication provides children with an opportunity for identity exploration and can offer children a forum within which to discuss sensitive issues (e.g., sexual matters) in a non‑confrontational, non‑judgmental setting. Additionally, online communication is, in some cases, a refuge for the socially ostracised. In other words, there are several benefits to online communication. However, there are also risks – which is why it is essential that children (of all ages) be empowered to manage their online interactions.

If it is considered that meeting people online is a risky practice, especially when there is no offline connection with an existing social circle, then awareness‑raising efforts should focus on boys and older teenagers.

3.3.   Overall experiences of harm

From a policy point of view, it is a matter of concern that over half of European children aged 9-16 think that there are things on the internet that will bother children of their age. One in eight children say that they themselves have been bothered by something on the internet in the past year, a fact not recognised by all parents interviewed. On balance, while it may be said that children see the internet positively (90% think it true that 'there are lots of things on the internet that are

good for children of my age'), the overall perception of negative aspects of the internet requires attention from policy makers.

There is a responsibility, therefore, on regulators, policy makers, educationalists and industry stakeholders to emphasise and accentuate the positive aspects of the internet for children, ensuring age-appropriate positive content and that every effort is made to minimise downsides. The EU Safer Internet Programme initiative on the promotion of positive online content has already been mentioned in this regard along with responsibilities of industry content developers in both the public and private sector. National initiatives given the multi-lingual context of the internet across Europe are particularly important in this regard. Responses from children in several large language communities (France and Spain) were less than positive about the availability of quality online content suitable for their age. Locally produced content of relevance and accessible to children in their own language is an interest and concern of children and merits a strong response from regulatory and industry groups.

3.4. Seeing sexual images

In the final report of EU Kids Online I, pornography was identified as the second most common risk affecting around four in ten teenagers in Europe.[31] The risks and the harm involved are viewed with some ambivalence across Europe, with strong prohibition in some cultures and relative equanimity in others. Media attention on internet pornography uneasily straddles between debates about large scale pornography industries on the internet,[32] sexualisation in popular culture generally[33] and fears of predatory behaviour, grooming and child abuse supported and enabled by internet technologies.[34]

Pornographic content is accessible to young people in a wide variety of contexts, offline and online, ranging from adult websites, peer to peer networks, virtual worlds, gaming communities, and via social networking and other social media platforms. From a regulatory point of view, the focus has been on fighting illegal content especially child abuse material online. The blurred boundaries and close proximity of illegal content to otherwise legal but potentially harmful content pose particular challenges for policy makers. Classifying illegal content and creating databases of illegal websites such as CIRCAMP in support of effective cross-national law enforcement activities is one important dimension of EU initiatives in this regard.[35] National and industry-level filtering is a further policy area arising from EU efforts to combat illegal content. A number of contributors to the Stakeholders' Forum cite filtering or blocking access to child abuse material online as an important policy discussion in their country, reflecting international debate on countering the transnational flow of illegal content (ACMA 2008).[36] With ISP-level filtering operative in some but not all countries, recent European Commission proposals for a Directive strengthening sanctions on illegal internet content will add urgency to this debate.

Existing co-regulatory provisions such as the INHOPE series of Hotlines across Europe provide another point of policy discussion. Defined as a first line of defence against illegal activity online, the network of hotlines responds to user reports of illegal content and provides a means of tackling and taking down such content within the jurisdiction of INHOPE partners. The visibility and effectiveness of such co-regulatory arrangements against the background of increasing amounts of pornographic content online and relying largely on citizen monitoring and reporting raises another point of discussion.

Specifically, in relation to young people's access to pornographic content, the use and effectiveness of browser filtering technology is a matter of ongoing debate. Benchmarking of filtering tools and services to assist parental control of children's internet use is one approach pursued under the Safer Internet Programme yet their effectiveness and/or appropriateness to contemporary democratic styles of parenting remains open to question.

When, where and how children have seen sexual images online

The easy availability of pornography online causes much public debate and anxiety with respect to children's use of the internet. The finding that the internet is now the most common way for children to see sexual images (14%), marginally more than on television, films or videos (12%), may fuel further concern in this regard. However, the reported exposure is lower than found in other surveys. There is also wide regional variation. The fact that there is relatively little difference in levels of exposure between the Internet and other media also helps put this issue in perspective.

The only observable gender difference is that teenage boys are more likely than girls to see pornography on websites, suggesting that when it comes to teenage boys, there is at least some degree of deliberate exposure, at least for a minority (23%). The principal implication arising is that a measured approach is required to discussion of topic in the context of internet safety.

Much exposure to sexual images online appears to be accidental. Nearly half of children (46%) who have seen sexual images online have come across them accidentally, as pop up images. 32% have seen them on a video hosting site such as You Tube. The small proportion of all internet using children (3%) that has seen some form of extreme content or violent sex is of greater concern.

Some key implications include:

- **To avoid accidental exposure, safety awareness messages need to give greater emphasis to the filter and safety settings of browsers and websites (including search engines and video hosting sites), informing parents and children about how to block such content.**

- **Strategies of reporting such content and informing an adult should be reinforced whilst encouraging critical media literacy among children in general.**

- **Companies supplying internet services should ensure prominent that 'Report Abuse' facilities are prominently displayed responded to promptly.**

Children's and parents' accounts of seeing sexual images online

Overall, the considerable agreement between parents' and children's accounts suggests that the spam and filter controls work reasonably effectively to block accidental exposure.

For those children who have seen sexual images, there is a wide gap in parental awareness. 40% of parents were not aware and 26% said they did not know if their child had seen such images. It is noteworthy that parents were least aware of younger children and girls' exposure. A major implication arising in this context is:

- **Parental awareness of risks for all children needs to be strengthened, parents should be alert to the potential of online exposure to sexual images, regardless of age or gender.**

- **Awareness-raising should pay particular attention to parents of younger children, encouraging dialogue and careful monitoring of children's online experiences.**

Perceived harm from seeing sexual images online and coping strategies

While the overall numbers of children reporting being bothered by what they had seen is relatively small (4%), it merits attention from policy makers. Of those that had seen sexual images, 32% were bothered or upset by the experience. This is particularly the case for younger children and for girls, which combined with the fact that many parents were unaware of their child's upset, is a cause of concern - reinforcing the need for greater parental awareness and support for effective coping strategies.

This is not to suggest that one should be alarmist or exaggerate the extent of such upset. There is wide regional and cultural variation in reports of being bothered. **Safety messages addressing issues of sexual images online should be measured in approach, avoiding implications of harm and seeking to empower parents and children.**

Findings in relation to children's coping strategies suggest some significant room for policy intervention and support. About one quarter (26%) of those who had been bothered by sexual images online took what might be called a 'passive' approach, hoping the problem would go away; 22% took a more proactive approach, trying to fix the problem themselves.

Seeking social support was the most important form of coping. Over half (53%) of those children aged 9-16 who had been bothered by seeing sexual images online told someone about this the last time it happened. Commonly, that person was a friend (33%), but just a quarter (25%) confided in a parent.

This finding has obvious implications for policy and, given the potential embarrassment of discussing pornography with adults, suggests that peer‑to‑peer education and intervention programmes could be more effective. The fact that few children confided in a teacher (just 3% of those that had been bothered by seeing sexual images online) is surprising in light of the considerable responsibility placed on teachers for internet safety education. In this context, integration of peer learning programmes within school settings may be appropriate.

- **Educational authorities and Awareness Centres should develop peer‑to‑peer education and intervention programmes in appropriate settings including schools, youth centres etc.**

- **With regard to internet-specific coping strategies (blocking, reporting, filtering), there is a need to increase awareness of such mechanisms and to improve their accessibility and usability. Industry providers should make such features a cornerstone of their child protection policy.**

- **At a regulatory level, compliance with agreed codes of practice needs to be independently evaluated on an ongoing basis.**

3.5. Bullying

How often and how children are bullied

The Stakeholders' Forum anticipated that cyberbullying would in fact be the most prevalent risk for children and young people today. It was also identified by stakeholders as one of the most frequently discussed policy topics at a national level. Cyberbullying is a complex issue from a policy perspective. Definitional problems remain, including defining the parameters of cyberbullying, cyber harassment and cyberstalking. As investigated in the EU Kids Online survey, online bullying has its correlate in the offline world and is unlikely to be successfully tackled in an online context alone.[37] While further research is required to increase our understanding of what is involved in cyberbullying, it is acknowledged that children are not always simply victims but also perpetrators of bullying, requiring appropriate and sensitive policy responses.[38] Heightened media attention to the phenomenon has led to calls for legislative action particularly in the United States where cyberbullying has been identified as the "one serious online offense that has no penalty".[39] Yet, experts in the field recommend balanced, proactive, education-based initiatives.[40]

On Safer Internet Day 2009, the European Commission launched a campaign dealing with cyberbullying (*Keep Internet fun, keep control! Block bullying online!*) with an emphasis on empowering young people to deal with harassment and bullying behaviour online through reporting abuse to service providers.[41] The provision of easy to use and accessible report buttons or similar mechanisms is a key element in this. The independent assessment has shown, however, that while most SNS sites have a link for reporting, less than half responded to complaints submitted during the assessment period.[42]

Findings from EU Kids Online indicate that nearly one in five (19%) 9-16 year olds across Europe has experienced some form of bullying online or offline in the past 12 months. Most is in fact face to face (13%); 6% is on the internet; and 3% by

mobile phone or text. The implication is that online bullying is a new form of a long‑established problem in childhood rather than, simply, the consequence of a new technology. This is a message that also needs to be imparted to policymakers, parents and all those with a vested interest in the safety and welfare of children. The prevalence of online bullying or 'cyberbullying' is often overestimated. Educational programmes, therefore, should place it within a broader context of bullying more generally and avoid over-senationalising its online features.

There are some countries (Romania and Estonia) where reports of being bullied, online or offline are twice the European average and which require more urgent attention by policymakers.

Social networking sites (SNS) and instant messaging (IM) are the most common online platforms for bullying in which children are the targets of nasty or hurtful messages. As such, education and awareness-raising, both on the part of service providers and educationalists, should focus on SNS sites and IM. Given that 12% of children also report that they have bullied others, approaches to bullying must address the child as both victim and perpetrator.

- **Anti-bullying messages should avoid over-sensationalising or exaggerating the online dimension to bullying.**
- **Awareness-raising in countries where bullying is more prominent should prioritise this as one of the key risks of children online**
- **SNS and online communication safety information should specifically address issues of bullying within their acceptable use policies**

Parental awareness

Overall, there is a high level of agreement between children and their parents regarding online bullying. However, for those children who been bullied online, 71% of their parents were unaware or unsure whether this was the case. Therefore:

- **Increasing parental understanding of the risks of online bullying has to be a key focus for awareness-raising, particularly in those countries where it is especially high, e.g. Cyprus, Hungary, Italy, Greece and Romania.**
- **As with the risk of seeing sexual images online, particular attention needs to be given to younger internet users, calling attention to issues of bullying among peer groups.**

Harm and coping strategies

Of the 6% who have been bullied online, this is fairly upsetting or very upsetting for over half (54%), especially for girls and children from lower SES homes. Bullying is rarely trivial, in other words, and more vulnerable children need targeted supports to enable them to cope more effectively.

Children's approach to being bullied online is primarily to call on social support – mostly the child's friends as well as telling a parent. Less than a quarter had not told anyone. This is encouraging both from the point of view of parental awareness and for the success of peer mentoring processes, increasingly employed in many countries to tackle online and offline bullying. By contrast, the low proportion of children who told a teacher (7%) raises questions as to why the educational environment is not conducive to dialogue. It may, for instance, have something to do with the perpetrator of the online bullying behaviour attending the same school as the victim. Teachers may need to be more alert to children's

sensitivities in this regard and provide opportunities for victims to confide in a teacher when bullying is primarily school-based.

With regard to internet-specific responses, deleting the hurtful messages and blocking the person who sent the hurtful messages was also seen by children as effective, and efforts to encourage more children to do this would be beneficial. The small proportion that changed their filter settings (18%) or reported the problem online (9%) suggests that such technical features require greater promotion on the part of service providers as well as better training in digital skills programmes.

The following is a summary of implications for policy makers:

- **Internet safety awareness dealing with cyberbullying should include response and coping strategies targeted at children of different ages, enabling them to cope with situations that may arise in online communication and social networking.**

- **Awareness Centres and educational authorities should provide teachers with resources enabling them to be alert to, and be able to respond to, incidents of cyberbullying.**

- **Children should be given specific digital skills to deal with reporting abuse or bullying online.**

- **SNS and internet service providers should ensure that technical supports for reporting feature prominently within their services.**

3.6.   Sending/receiving sexual messages

Sending/receiving sexual messages or 'sexting' has attracted some notoriety as the latest in a series of risky practices engaged in by young people. It has been facilitated by online communication but may in certain cases become a special case of cyberbullying, online sexual harassment or even be deemed distribution of illegal content. The little available research to date has reported it as a common feature of everyday teenage online interaction, suggesting that about one third of young people send or post sexually suggestive messages.[43] While anecdotally it appears to be a practice that doesn't bother young people, for policy makers 'sexting' acts as a new legal frontier blurring illegal and irresponsible practice.[44] How the legal system should respond poses a challenge for legislators and policy makers. Existing industry provisions, for instance as adopted by the European mobile industry, need to be assessed in light of potential abuses and the need to provide additional support and guidance to children, and their parents.[45] For stakeholders in education and child protection important questions arise in terms of balancing issues of empowerment and judicial protection of children in this as in other areas of risk activity. While no consensus exists on appropriate responses to what is a complex phenomenon, the importance of representing youth voices and articulating youth experience is crucial.[46] Further issues arise for educators particularly in relation to levels of digital literacy regarding online images, in particular their reproducible and indestructible character.

How often children send or receive sexual messages online

A complication of online communication, noted earlier, is that so called 'sexting' messages may be sent from peer to peer directly or they may be posted online (e.g. on a social networking site or message board) where others can see them. According to EU Kids Online findings, the percentage of those receiving such messages (15%) and the frequency with which it occurs remain low.

Receiving sexual messages in a pop up is the most common (5%) followed by instant messaging or on a social networking site (both 4%), with much less common occurrence in chatrooms or gaming sites. **As such, it is these platforms that should be the focus of education and awareness-raising.**

Parental awareness

There is a considerable difference of agreement between children's and parents' accounts of sexual messaging. For children who had seen or been sent such messages, 52% of parents denied that this had occurred and a further 27% did not know. Gaps in understanding are particularly pronounced in some countries (e.g. Romania). Accordingly,

- **Awareness-raising for parents remains an important priority with a focus on alerting parents to the nature of the risks their children may encounter online and encouraging dialogue between parents and children in relation to young people's online activities.**

- **Nonetheless attention to sending/receiving sexual messages needs to be incorporated into educational programmes for both children and parents. School's programmes are particularly important in this regard as a trusted source of information.**

Harm and coping strategies

A quarter (25%) of the children who have received sexual messages were bothered by this. Girls, younger children and children from lower SES homes appear to be more affected and it is these groups who should be the main target of policy interventions. On the other hand, older teenagers appear to be relatively unconcerned about such messaging though an understanding of privacy and the harm, inadvertent or otherwise, that can be caused by sexual messaging remains a priority.

Seeking social support remains the most important coping strategy. Most children (60%) talked to someone about it, the most common person talked to being either a friend (37%) or a parent (29%). As with other risks, few children tell some of the other people who might be expected to support the child – teachers or other responsible adults. The implications of this are that parental and peer mediation strategies would appear to be most likely to be effective.

Only a minority of children seek a technical solution in dealing with upsetting sexual messaging – deleting the unwanted sexual messages and/or blocking the person who sent them being the most common. In most cases, the child said that this action helped the situation. Roughly a quarter (24%) try to reset their filter or contact settings and nearly all of these children say it helped to do this. Empowering children to be safe and responsible users of the internet means ensuring they have the requisite skills and ability to use the various technical solutions available to them in managing their online interaction and communication.

- **Parental and peer mediation strategies as the most likely to be effective should be supported and developed.**

- **Ensuring children have the necessary skills to enable them to block content and/or report abuse must be a priority for digital skills training.**

- **Internet safety for older children should foster an understanding of privacy and the harm, inadvertent or otherwise, that can be caused by sexual messaging.**

3.7. Meeting new people

Frequency of meeting online contacts offline

Contact risks involving children meeting someone new online and subsequently face to face have given rise to particular concerns for child safety following in the wake of thankfully rare occasions where children are a target of online predators or groomed for subsequent abuse.

Yet, findings from this survey show that more than a quarter of children had made contact with someone they did not previously know offline, and that for older children this is a much more common occurrence (46%). About one in ten go on to meet someone face to face that they first met on the internet, most but by no means all of who were within their social circle. Social networking sites (SNS) provide the platform most likely to facilitate such encounters.

Parental Awareness

Parents in general underestimate the incidence of such meetings. In cases where a child admitted they had met someone face to face that they first met on the internet, most parents (61%) denied or did not know this had occurred. **From the point of view of child safety, this is a matter of concern, pointing again to the need to target awareness-raising at parents regarding potential risks and ensuring they have some understanding of the possible dangers involved.**

Harm and coping strategies

Further research is required to understand the precise nature and meaning of meeting online contacts offline as for many it is a harmless way of extending one's social circle. Yet the dangers posed, even if unlikely, are serious. 11% of children who had gone on to meet online contacts offline were bothered by the experience and significantly 31% of 9-10 year old children were bothered or upset by some aspect of it. **This suggests that despite the relatively low occurrence, contact risks should remain a priority in child safety strategies and that parents, teachers and other responsible adults should be alert to the risks involved.**

3.8. Other risk factors

There is increasing policy interest and concern about the expanding range of potentially harmful user-generated content on the internet, particularly through Web 2.0 platforms. Overall 21% of children (11-16) had seen some form of harmful content whether this was hate messages, or so-called pro-anorexia/bulimia sites, or sites promoting self-harm, suicide or drug-taking.

Children often report that personal data misuse is a matter of concern to them. In the survey, 9% of children experienced some form of data misuse such as having their password misused or personal information compromised.

Both of these topics require further research and detailed analysis and **should feature in awareness-raising strategies, as well as industry policies with respect to content monitoring and child protection strategies.** Industry should engage in committed partnerships with child healthcare specialists, facilitating information and professional help to children with special needs/reporting on critical risks (such as self-harm/suicide/pro-ana sites).

3.9. Mediation

EU Kids Online provides detailed data about the mediation of children's online activities via parents, peers and teachers. An important element of current strategy for promoting safer internet use is education and awareness-raising of parents, carers, teachers, etc. in support of effective mediation strategies. Eurobarometer (2008) as well as EU Kids Online provide data about the extent of parental involvement in the internet activities of their children, the nature of that mediation and any variation with age as well as an assessment of its effectiveness.

Some of the policy issues that arise concern the range and effectiveness of different parenting styles;[47] gaps between child and adult perspectives on the value or effectiveness of parental mediation;[48] the balance between protection and empowerment and identification of approaches that do not impede young people's desire to interact freely online.[49]

In EU Kids Online I, schools were seen as the best placed to teach children the digital and critical literacy skills required to maximise opportunities and minimise risks.[50] In this survey, young people were asked if their teachers provided training, support or internet safety advice. There is some evidence that young people, boys in particular, prefer to receive their primary internet safety information from school rather than from their parents.[51] Yet the availability of such internet safety education in schools is uneven. According to Eurydice, internet safety issues are present in the school curriculum in the majority of European countries (in 24 of 30 countries surveyed), though in nearly half of these cases it was not part of the core curriculum.[52] In all cases there is strong co-operation between schools and INSAFE Awareness Centres. However, within the curriculum, there is wide variation in how internet safety is taught, ranging from technical ICT training to a more general horizontal theme across a number of subjects or across the whole curriculum. From the Eurydice survey, it is known that safe behaviour online features in all forms of internet safety education. But is this reflected in children and young people's responses and are there policy concerns that arise in relation to the take up or otherwise of schools' provision in this regard?

Parental mediation strategies

The importance of increased parental awareness of online risks and safety has been noted above. Significant gaps in parental knowledge of their children's online activities have been identified for those that have experienced risks. This unquestionably gives rise to concerns for child safety and for the effectiveness of the mediation that parents can provide. With regard to younger children, the need for a better understanding of the online world on the part of parents is all the more urgent.

At the same time, there are encouraging findings that confirm that the vast majority of parents do in fact actively mediate their children's internet use (87%). Parents are also a very important source of internet safety information (also 86%). **The pre-eminent role that they occupy in both instances confirms that parents are best positioned to act as the key support for safer internet use for children**. A similar propoortion of parents also set definite rules regarding internet use, in particular regarding giving out personal information online. In each case, active mediation is associated with younger children and becomes less prominent as the child gets older. Yet, as discussed above, it cannot be assumed that all parents have the necessary skills, knowledge or technical expertise to successfully mediate and support their children online.

Technical mediation, or the use of parental controls or filtering technologies, is much less prominent and despite the considerable policy attention such technologies have received, they are only used in less than one third of cases. This is much lower than the 59% of parents in the Eurobarometer survey of 2008 who declared that they were using filtering or monitoring software. **Clearly, there are implications for developers of parental controls in terms of their usefulness and accessibility. Further efforts need to be made to ensure that parental controls are effective and meet the needs of parents.**

The SIP-BENCH 2 benchmarking of parental control tools provides a valuable evaluative exercise in this regard. This Safer Internet Programme-funded project offers an independent expert assessment of products, tools and services that control access to inappropriate content online and produces a ranking list to assist the decision-making process.[53]

Industry as well as Awareness Centres can usefully disseminate such information and ensure that information for parents about available technologies and services is available in an accessible and user-friendly form.

In relation to parents' preferred sources of information on internet safety, the child's school was identified as the most popular, followed by traditional media, other family and friends, ISPs and other online sources. **In order to support and develop the effectiveness of parental mediation, schools should strengthen home-school initiatives such as training programmes, workshops and information dissemination. Industry sources, in conjunction with Awareness Centres, should also develop resources aimed at parents providing up to date advice on the latest technologies, risks and safety advice.**

Effectiveness of parental mediation

Parental mediation is seen to be somewhat effective to the extent that over two thirds of children consider parental mediation helpful to some degree. Most children also agree that their parents are sufficiently knowledgeable about their internet activities to be of some assistance. Over half – and in particular younger children – say that parental mediation limits their activities. From the parents' perspective, most are confident in their ability to help their children with anything that bothers them on the internet. Most children are satisfied with the level of parental involvement in their online activities. Some would like more. Most children also appear to be attentive to their parents' efforts to mediate their internet use and do not ignore it, though there is wide national variation on this point.

The fact that there is a substantial amount of parental mediation being practised in European families is a very positive finding and provides a sound basis for encouraging more and better forms of parental mediation. There is also clearly an interest and demand for this. Over half of parents feel they should do more. Children in Romania, Portugal, Turkey and Cyprus would greatly like to see their parents more actively involved.

Other forms of mediation

Overall, as it stands, internet safety advice is given to children first by parents (63%), then teachers (58%), and then peers (44%). There are demographic and national variations in this profile but in each case there is room for further development.

Most teachers, though not as much as parents, have also engaged with children about matters of internet safety. Just over half of teachers talk to children about what they do on the internet and overall, four in five children report some mediation of their online activities from their teachers. Given the central role of schools in formal internet safety education, this is less than might be expected. One in five children do not receive any input from teachers about the internet. Considerable national variation is also evident and nearly half of the countries surveyed are below the European average for school based internet mediation.

Other research has shown that, while most European countries do include internet safety in the curriculum, for many it is not a core or central element.[54] **The implication of this finding is that a substantial number of children are missing out on an essential part of the education and as such internet safety should be prioritised as a core element of the curriculum across Europe.**

The potential of peer mediation as an effective strategy in relation to risks such as seeing sexual images or bullying, instances where children may find it difficult or embarrassing to talk to an adult, has already been noted. Peers, it was found, are more likely to provide practical help than give safety or ethical advice. Under half (44%) of children had received safety advice from friends and just 35% had said they provided such advice.

Other sources of information regarding internet safety are much less in evidence: 15% of children have received internet safety advice via the traditional media and 15% from online sources, 4% from ISPs. Nearly four in ten overall did not receive advice from any of these sources. **Clearly, there is substantial room for industry to develop and prominently display authoritative internet safety resources.** While social forms of mediation remain the primary form in which internet safety education is received, the need for reliable and accessible online information resources is clear.

4. CONCLUSION

A key objective of the EU Kids Online project is to strengthen the evidence base for policies regarding online safety in Europe. Its survey with nearly 25,000 children and their parents in 25 countries across Europe offers an unrivalled opportunity to gain greater knowledge of European children's and parents' experiences and practices regarding risky and safer use of the internet and online technologies, thereby informing the promotion of a safer online environment for children. Significantly, findings come directly from children themselves, allowing for the first time a fully comprehensive and comparative portrayal of young people's experiences in Europe. Work Package 7 of the project is concerned with drawing out the implications of the evidence base for policy making. In this report, we highlight significant issues arising from the findings of the survey, aligning them with existing initiatives where relevant in the distinct areas of risk and safety addressed.

The range of initiatives supported by the Safer Internet Programme – developing the knowledge base, raising public awareness, fighting against illegal content and tackling harmful conduct online, whilst promoting a safer online environment – provide some of the important reference points. Awareness Centres in the INSAFE network are a central instrument of such initiatives, disseminating internet safety information to multiple stakeholders and developing collaborative relationships at a national level with education and schools, with relevant legal and regulatory authorities and with various NGOs with interests in child protection and well-being. National governments play an important role in this, in particular, in leading curriculum policy and schools involvement. Industry at both national and European level likewise is a crucial partner in internet safety and a focal point of European policy has been to engage industry stakeholders in a cooperative process of voluntary regulation. Finally, children, young people and their parents are not just the target of awareness-raising but have active roles in promoting and supporting safer internet practices.

4.1. Main policy priorities

In conclusion, the following are the top five policy priorities arising from the study:

1. Parental Awareness

One important overall finding from the EU Kids Online survey concerns the lack of awareness that many parents have regarding risks children face online. 40% of parents, for instance, were unaware of their children's exposure to sexual images online; 56% did not know that their child had been bullied; 52% were unaware that their children had received sexual messages; and 61% had no knowledge of offline meetings their children had with online contacts. A significant challenge arises for policy makers however in addressing the gaps in understanding between parents and children about young people's experience online. At the same time, given that the household remains the most prominent location for internet use (87%), parents are best positioned to offer mediation and support for children online.

Parental awareness of risks and safety online needs to be enhanced. The priority for awareness-raising for parents should be on alerting parents to the nature of the risks their children may encounter online whilst encouraging dialogue and greater understanding between parents and children in relation to young people's online activities. Parents need to be alerted to the risks involved while avoiding an alarmist or sensationalist approach. Increasing parental understanding of the risks has to be a key focus for awareness-raising, particularly in those countries where awareness of children's risk experience is lowest.

At the same time, the role of parents in providing internet safety support is central, reinforced by the fact that the majority of internet use is at home and hence parents are the potential first point of contact when children experience difficulties online. **In order to assist them in this respect, emphasis should be given to the preeminent role parents occupy in supporting safer internet use for children.**

Parents' preferred sources of information on internet safety are firstly the child's school, followed by traditional media, other family and friends, ISPs and other online sources. The fact that the use of industry tools (safety information, abuse buttons etc.) is low implies a lack of awareness and/or trust on the public's part. **Such awareness and trust is something that industry should seek to raise in order to improve take up of industry solutions by parents. Industry can also work closely with Awareness Centres to develop resources aimed at parents providing up to date advice on the latest technologies, risks and safety advice. Relevant stakeholders might also strengthen home-school initiatives such as training programmes, workshops and information dissemination.**

2. Focus on younger users

Children are going online at ever younger ages. Across Europe, one third of the 9-10 year olds using the internet go online daily. The average age of first internet use in some Northern European countries is seven. Younger children also lack skills and confidence in areas of internet use that are especially important for safety. **Accordingly, there needs to be a new policy focus on promoting awareness-raising and support measures designed to suit the needs of much younger internet users.** This means that not just secondary schools where the traditional focus has been but **primary schools need to develop new ways of reaching younger children as users of the internet providing age-appropriate training and advice.** Online resources aimed at younger children, for instance, must not assume reading competence. Teacher training also needs to equip teachers, particularly within the primary sector where it is relatively new, with the skills to support younger children.

3. Industry support for internet safety

The essential role of industry is consistently emphasised in European internet safety policy and expressed through self-regulatory codes developed to promote good practice in safer internet safety use. Based on the findings of EU Kids Online, there are a number of areas in which such industry efforts should be improved. **In keeping with existing industry voluntary codes, internet service companies, especially social networking providers, should provide the maximum amount of security and highest level of privacy by default for children using their services.** Children are not always able to use existing technical features and the number of children, for instance, who are able to change their privacy settings is less than the number with a social networking profile. There is also little evidence of availability of online information regarding internet safety: only 15% of children have received such information from online sources, and just 4% from ISPs. Nearly four in ten overall did not receive advice from any of these sources. There is a clear need for reliable and accessible online information and **industry should ensure that authoritative internet safety resources are prominently displayed and accessible. Information about safety features, for instance, should be available to all users and their parents before signing up to a service. Parental controls as well as technical tools to support blocking, reporting, filtering should also be a cornerstone of industry child protection policy with a need to increase awareness of such mechanisms and to improve their accessibility and usability to aid better take up by parents and children.**

4. Digital citizenship

Children and young people are increasingly going online independently of adult supervision. While the majority of internet use takes place at home (87%), 49% of young people go online in their own room. Moreover, 31% access the internet on a mobile phone and 24% on their own laptop. The widely promoted internet safety message of locating the PC used by

children in a public space within the home remains important but is being overtaken by alternative means of internet access which are less amenable to adult supervision. Given the increasing trend towards more privatised use of the internet, the increasing prominence of mobile access, as well the ever younger age of children's first internet use, awareness raisers are consequently urged to focus efforts on developing self-protection and self-responsibility among children. **It is important, therefore, to encourage children to be responsible for their own safety as much as possible rather than rely on restrictive or adult forms of mediation. The focus of internet safety messaging should be on empowerment rather than restriction of children's usage, emphasising responsible behaviour and digital citizenship. Similarly, the development of policy, child safety practices and positive online content should also focus on children as a competent, participatory group.**

Digital citizenship can also be supported through a focus on developing children's digital skills. While most children have a basic level of internet skills, more creative aspects of online activity are actually not as common as some more enthusiastic visions of children's online expertise. Only 16% of children spend time in a virtual world, and just 11% have experience of writing a blog. **Digital skills training therefore should also focus attention on broadening the range of activities undertaken specifically, more creative aspects including content development, to ensure children avail of all the opportunities for learning and communicating online.**

5. Positive Content

Less than one half (44%) of 9-16 year olds are very satisfied with levels of online provision available to them. Younger children are the least satisfied with the perceived quality of online provision – only 34% of 9-10 year olds say there are lots of good things for children of their age to do online. Teenagers, by contrast, are the most satisfied, presumably because they share in wider public provision.

At the same time, over half of European children aged 9-16 think that there are things on the internet that will bother children of their age. One in eight children say that they themselves have been bothered by something on the internet in the past year, a fact not recognised by all parents interviewed. On balance, while it may be said that children see the internet positively (90% think it true that 'there are lots of things on the internet that are good for children of my age'), the overall perception of negative aspects of the internet requires attention from policy makers.

There is a responsibility, therefore, on all policy actors to ensure greater availability of age-appropriate positive content for children. National initiatives, given the multi-lingual context of the internet across Europe are particularly important in this regard. Responses from children in several large language communities (France and Spain) were less than positive about the availability of high quality online opportunities suitable for their age. Locally produced content of relevance and accessible to children in their own language is an interest and concern of children and merits a strong response from regulatory and industry groups.

4.2. Policy actions

Actions at regulatory and governmental level

Findings of the EU Kids Online survey highlight areas of action appropriate at the highest European and governmental policy levels, including the Safer Internet Programme's policy priorities and objectives. At a general policy level, it is recommended that

- Cooperative arrangements with industry should be continued and strengthened to bring about more effective safer online practices, and to continue to monitor their implementation on an independent basis. Specifically,

based on the findings of the EU Kids Online survey, we identify opportunities for industry to develop greater positive content for younger children, greater support for implementing safety features in social networking sites used by children, as well as the role of industry in developing resources for digital safety education. At a policy level, evaluation of the effectiveness of self-regulatory approaches for industry needs to be maintained and implemented on an ongoing basis.

- Digital divides based on inequalities of access, usage and knowledge need to be further understood and addressed through policy action. Children from high SES homes enjoy a wider range of access to the internet, especially at home, in their bedroom, and via handheld or mobile devices. Children from lower SES homes are more likely to be bothered or upset by online sexual or pornographic content, as well as more upset by receiving nasty or hurtful messages online and by seeing or receiving sexual messages.

- A digital divide is more pronounced in Southern and Easter European countries where children are less likely to have the level of access enjoyed by children in other parts of Europe. Research has shown that parents' level of internet use is catching up with that of children in most European countries. However, children's use exceeds that of parents, conforming to the 'digital natives' model, in the Eastern European countries of Romania, Bulgaria, Poland, Lithuania and Turkey. As such, targeted initiatives need to be undertaken, particularly in those predominantly Eastern Europe countries where parental use of the internet lags significantly behind that of children.

- 21% of children have encountered websites containing potentially harmful user generated content such as sites containing hate messages, anorexic/bulimic sites, sites promoting self-harm or which discuss drug taking. Approximately 9% of children have experienced some form of personal data misuse. Little is known about the effects of such experiences. The policy experience of mental health practitioners and allied professionals may be valuable in this context. Industry should engage in committed partnerships with child healthcare specialists, facilitating information and professional help to children with special needs/reporting on critical risks (such as self-harm/suicide/pro-ana sites)

At the national level, governments are responsible for legislative and regulatory controls, especially in relation to illegal content but also in relation to issues of protection of minors, data protection, privacy, industry regulatory arrangements, educational policy and they are responsible for supporting internet safety initiatives at governmental level.

Many of the policy issues identified in this report as relevant at the European level apply also at national level.

- Governments and regulators, for instance, can encourage the development of positive online content through production funding programmes and incentive schemes.

- While the density of ICT regulation at national level varies across Europe, the available degree of oversight or control that national governments have in relation to internet safety should be utilised to ensure effective regulation and evaluation of industry compliance with agreed codes of practice.

- The need for more extensive digital skills training and internet safety education arises directly from findings in relation to skills gaps, particularly among younger children, where on average children say they have just three of the eight skills asked about. National governments should therefore ensure that digital skills and internet safety are prioritised within the national educational curriculum particularly in countries such as Turkey, Romania, Italy and Hungary where a skills deficit is particularly pronounced.

Actions from industry

Industry, including internet service providers (ISPs), content or software applications developers, representative industry associations, has a crucial role to play in facilitating and promoting online safety. As participants in co-regulatory agreements and codes of practice, SNS providers, and mobile communications operators support internet

safety through information dissemination, through technical supports and child protection policies. Industry operators also provide and develop online content. Some of the specific actions identified as relevant to industry include:

- Industry service providers should provide prominent internet safety advice and user-friendly internet tools that encourage a self-governing approach.

- Online media companies including public and private sector companies should be encouraged to develop greater online content, especially for younger users.

- NGOs can similarly play a role in fostering partnerships with industry groups in developing dedicated content for younger children.

- As per EU Safer Social Networking Principles, operators should be encouraged to provide the maximum amount of security and highest level of privacy by default for children using their services.

- Special attention needs to be given to the data protection and privacy issues surrounding the large number of younger children, including underage children using SNS.

- Industry service providers should be encouraged to ensure prominent 'Report Abuse' facilities and to monitor content hosted.

- With regard to internet-specific coping strategies (blocking, reporting, filtering), there is a need to increase awareness of such mechanisms and to improve their accessibility and usability. Industry providers should make such features a cornerstone of their child protection policy.

- SNS and online communication safety information should specifically address issues of bullying within their acceptable use policies

- SNS and internet service providers should ensure that technical supports for reporting feature prominently within their services.

- Further efforts need to be made to ensure that parental controls are effective and meet the needs of parents.

Actions related to awareness-raising

Many of the issues arising from findings in the EU Kids Online survey relate to awareness-raising activities, led in the main by the pan-European network of Awareness Centres supported by the Safer Internet Programme as well as NGOs involved in child safety and protection. Implications highlighted in this report refer variously to the form and content of internet safety messaging, priority target groups and areas of risk that require particular attention.

One overriding theme emerging from the discussion of implications of our findings in relation to children's usage and activities online is that empowerment rather than restriction should be the focus of internet safety messaging, emphasising responsible behaviour and digital citizenship. We have argued that Awareness Centres should:

- Focus efforts on developing self-protection and self-responsibility among children.

- Develop specific safety messages with regard to mobile devices and other platforms.

- Develop a special focus on younger children as internet users and tailor resources accordingly.

Taking into account some of the emerging trends regarding internet usage, we suggest that:

- Greater awareness of the potential dangers of excessive internet use should be incorporated into internet safety awareness-raising.

- Internet safety advice should also be available in the other public locations for internet access (internet café, public library etc.) used by young people and safety messages should be prominently displayed for internet users.

In relation to the content of internet safety messages and awareness-raising campaigns, specific issues that we have called attention to include:

- To avoid accidental exposure to unwanted or negative content online, safety awareness messages need to give greater emphasis to the filter and safety settings of browsers and websites (including search engines and video hosting sites), informing parents and children about how to block such content.

- Strategies for reporting upsetting content and informing an adult should be reinforced whilst encouraging critical media literacy among children in general.

- Safety messages addressing issues of sexual images online should be measured in approach, avoiding implications of harm and seeking to empower parents and children.

- As with the risk of seeing sexual images online, particular attention needs to be given to younger internet users, calling attention to issues of bullying among peer groups.

- Anti-bullying messages should avoid over-senationalising bullying as a specifically online phenomenon.

- Internet safety awareness dealing with cyberbullying should include responses and coping strategies targeted at children of different ages, enabling them to cope with situations that may arise in online communication and social networking.

- Specific guidance for parents of younger children should also be developed to enable them to support internet safety education at home.

- Peer mediation strategies should be supported and developed as effective means of supporting children's safety awareness and skills.

Finally, in relation to target audiences for internet safety messaging, a focus on parents and younger children has already been identified as a major priority. Awareness-raising in this context should pay particular attention to parents of younger children, encouraging dialogue and careful monitoring of children's online experiences.

In addition:

- Internet safety for older children should foster an understanding of privacy and the harm, inadvertent or otherwise, that can be caused by sexual messaging.

- Awareness Centres are well positioned to disseminate information about parental controls and ensure that information for parents about available technologies and services is available in an accessible and user-friendly form.

- Increasing parental understanding of the risks has to be a key focus for awareness-raising, particularly in those countries where parental awareness is especially low, e.g. Hungary, Greece and Romania.

- Awareness-raising in countries where bullying is more prominent should prioritise this as one of the key risks of children online.

- Awareness Centres should provide teachers with resources enabling them to be alert to and, be able to respond to, incidents of cyberbullying.

- Instant messaging and social networking sites are the most common platforms for encountering sexual messages online and, as such, education and awareness raising should focus on these.

Education and schools

Schools, identified by parents as the preferred source of information about internet safety, play a central role in the delivery of training in digital skills, safety advice as well as opportunities for peer learning. Schools and the wider educational community are uniquely placed to address all children on internet safety and need to be resourced to do so. The fact that school or college is the second most common location for going online (63%) also means that schools provide children with important access opportunities. In relation to awareness-raising and internet safety training, the following actions have been identified in light of the findings of our survey:

- The pivotal role of schools in supporting ICT education and internet safety needs to be formally recognised and supported. Teachers and other educators are charged with considerable responsibility for digital skills and e-safety education. It is the responsibility of the State and others with a vested interest in teaching children to become safe, responsible, creative and productive users of ICT to ensure that schools are adequately resourced to carry out this role.

- Schools should develop new ways of reaching younger children as users of the internet providing age-appropriate training and advice. Younger children should be a special focus for digital skills training. Although sizeable numbers of 9-10 year olds use the internet, they have little confidence that they know much about it.

- Teacher training needs to equip teachers, particularly within the primary sector where it is relatively new, with the skills to support younger children.

- Digital skills training for young people should continue to be emphasised and common standards should be implemented in training, safety features, and applications operation.

- Digital skills training should focus attention on broadening the range of activities undertaken specifically, more creative aspects including content development, to ensure children avail of all the opportunities for learning and communicating online.

- Digital skills programmes should include a focus on technical features and skills associated with privacy settings and management of SNS profiles.

- ICT training should pay particular attention to self-management of online content and behaviour enabling young people to become more critically aware of the benefits and risks associated with posting content online.

- Educational authorities and Awareness Centres should develop peer-to-peer education and intervention programmes in appropriate settings including schools, youth centres, etc.

- Nonetheless attention to sending/receiving sexual messages needs to be incorporated into educational programmes for both children and parents. Schools' programmes are particularly important in this regard as a trusted source of information.

- Ensuring children have the necessary skills to enable them to block content and/or report abuse must be a priority for digital skills training.

- In order to support and develop the effectiveness of parental mediation, schools should strengthen home-school initiatives such as training programmes, workshops and information dissemination. Industry sources, in conjunction with Safer Internet Centres, should also develop resources aimed at parents providing up to date advice on the latest technologies, risks and safety advice.

Advice for Parents

Finally, the role of parents in promoting internet safety, especially for younger children, has received particular emphasis in this report and, therefore, is particularly important. We have argued that the central role of parents in internet safety awareness needs to be highlighted in awareness raising and that appropriate support and guidance is provided to parents to assist them in carrying out this role. One of the main challenges arising from the gaps in understanding that many parents have of their children's experience online is to target awareness raising directly at parents themselves, alerting them to the risks involved while avoiding an alarmist or sensationalist approach. Therefore:

- The priority for awareness-raising for parents should be on alerting them to the nature of the risks their children may encounter online whilst encouraging dialogue and greater understanding between parents and children in relation to young people's online activities.

- Parental awareness of risks for all children needs to be strengthened, so that parents are alert to the potential of online exposure to sexual images, regardless of age or gender.

Specific advice to parents includes:

- Parents should be encouraged to discuss the topic of excessive internet use with their children and to agree limits of screen time and internet use at home.

- Children should be taught self-management skills regarding their use of the internet.

- Guidance for parents is needed in how best to talk to children about their privacy settings, respectful of their privacy while being alert to the risks involved.

- While contact risks are a relatively low occurrence, they should remain a priority in child safety strategies and parents should be alert to the dangers involved.

- Parents should provide encouragement to let their children experience positive content online and the importance of developing digital skills through participation.

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