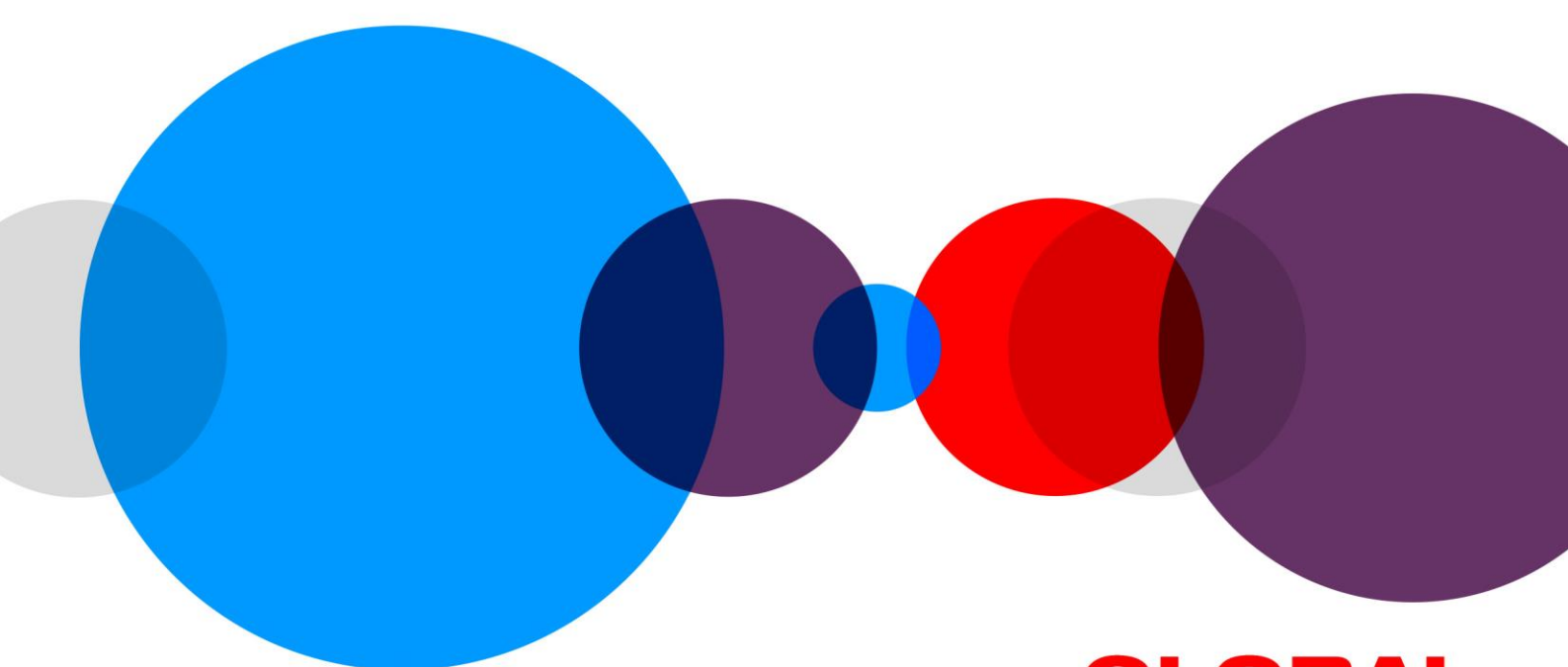# METHOD GUIDE 6

Researching the benefits and opportunities for children online

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GLOBAL
KIDS
ONLINE

www.globalkidsonline.net

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GLOBAL KIDS ONLINE

Global Kids Online is an international research project that aims to contribute to gathering rigorous cross-national evidence on children's online risks, opportunities and rights by creating a global network of researchers and experts and by developing a toolkit as a flexible new resource for researchers around the world.

The aim is to gain a deeper understanding of children's digital experiences that is attuned to their individual and contextual diversities and sensitive to cross-national differences, similarities, and specificities. The project was funded by UNICEF and WePROTECT Global Alliance and jointly coordinated by researchers at the London School of Economics and Political Science (LSE), the UNICEF Office of Research-Innocenti, and the EU Kids Online network.

ABSTRACT

Research in the last five years has documented a range of proven benefits for children of participating online, including positive impacts on formal and informal learning; health and well-being; literacy; civic and/or political participation; play and recreation; identity; belonging; peer, family and intergenerational relationships; individual and community resilience; and consumer practices (Swist et al., 2015). Even so, relatively little is understood about the various benefits and opportunities children can access online. If governments, communities, parents and children themselves are to activate the potential for digital media to support children's rights, it is vital that research documents more systematically the relationship between the digital and children's protection, provision *and* participation rights.

This Method Guide situates current research on online benefits and opportunities in relation to key trends in global research on digital practice, and identifies the key issues that shape children's capacity to maximise the positive impacts of their online engagement. It then documents some of the challenges to research, and proposes a set of principles and critical questions to guide researchers in designing appropriate studies. This Guide is not exhaustive. Rather, it aims to orient researchers in developing internationally comparable and culturally appropriate frameworks for understanding the scope and impact of the opportunities for children online.

INTRODUCTION

In the rush to keep pace with technological change, and to track the impacts of technology use on children across different national and cultural settings, the focus of global research on children's digital practices has until now rested on mapping key uses, and on identifying and quantifying online risks and harms. Reflecting the emphasis on safety that dominates policy and practice in many parts of the world, research has focused far less on the opportunities and benefits of online engagement.

Research in the last five years has documented a range of proven benefits for children of participating online (Collin et al., 2011; Swist et al., 2015). These include positive impacts on formal and informal learning; health and well-being; literacy; civic and/or political participation; play and recreation; identity; belonging; peer, family and intergenerational relationships; individual and community resilience; and consumer practices (Swist et al., 2015). Even so, relatively little is understood about the various benefits and opportunities children can access online. Indeed, in their landmark *A global agenda for children's rights in the digital age*, Livingstone and Bulger (2013) identified evidence generation on how to promote online opportunities for children as one of four key priorities for global research, policy and practice.[1] Much more research is needed about effective strategies for promoting the benefits and opportunities for children; how experiences of diversity affect – both positively and negatively – the opportunities children encounter online; and how to translate key lessons across different economic, geographic, social and cultural settings.

We know that maximising the benefits children experience online can support them to better identify and deal with the challenges they face in the digital world and minimise their exposure to harm (Collin et al., 2011). However, we also know that not everyone can access the opportunities of engaging online in the same ways, to the same degree, or to the same effect (Livingstone & Helsper, 2007). If governments, communities, parents and children themselves are to activate the potential for digital media to support children's rights, it is vital that research broadens its focus on children's protection rights to encompass children's rights to provision and participation. Global research must document more systematically the benefits of children's online participation. It must also identify the social, cultural, political and economic circumstances that enable children to access and benefit from the full range of opportunities available in the digital age.

This Methodological Guide supports researchers in this task. It situates current research on online benefits and opportunities in relation to key trends in global research on digital practice, and identifies the key issues that shape children's capacity to maximise the positive impacts of their online engagement. It then documents some of the challenges to research, and proposes a set of principles and critical questions to guide researchers in designing appropriate studies.

Research on the opportunities and benefits of children's online participation is still a relatively new enterprise. There are established tools, measures and frameworks for researching some online opportunities, but other opportunities are more difficult to research or require experimentation and deeper exploration. This Guide is not exhaustive, but aims to identify some of the key issues, existing methods and areas for future exploration to orient researchers in developing internationally comparable and culturally appropriate frameworks for understanding the scope and impact of the opportunities for children online.

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[1] The other three priorities are: (1) Identifying the conditions that render particular children vulnerable to risk of harm online; (2) Generating an evidence base about children's digital practice and its relationship to their rights in the global South; and (3) evaluating existing policies and programmes, and generating comparable baseline data.

KEY ISSUES

From risk to opportunity: a trend in global research

As is well documented by research, the rapid spread of connectivity presents a range of new potential risks and harms for children (Livingstone & Bulger, 2013). The risk and safety challenges are particularly acute in the global South, where 'fast-paced, widespread growth often occurs far ahead of any understanding of what constitutes safe and positive use in digital contexts' (Livingstone et al., 2014, p. 3). The International Telecommunication Union (ITU) reports that children are frequently early adopters, and their uptake often outpaces that of their adult counterparts (ITU, 2014). Children in parts of the global South do not always have the benefit of adult guidance from parents, teachers and other caregivers. Nor do policy, legislative and regulatory mechanisms in these contexts always adequately support and protect children online (Livingstone et al., 2014). Being able to manage and respond to online risks underpins children's capacities to benefit from their online activities (Third et al., 2014b). It is thus vital that risk and safety remain core components of the research agenda.

However, current scholarship underscores the urgency of promoting measured responses to risk and safety issues by researchers, policy-makers and practitioners:

In exploring how to respond to the online lives of children and young people, safety must sit alongside, and be integrated with, a broader range of considerations, including promoting positive uptake of online opportunities, promoting skills relevant to a digital economy, and encouraging the development of accessible, democratic online spaces in which rights to both play and participation, amongst others, can be realised. (Davies et al., 2011, p. 1)

Indeed, recent research suggests that the strong research, policy and practice focus on the risk and safety paradigm may be impeding children's rights to provision and participation. In other words, 'safety initiatives to reduce risk tend also to reduce

opportunities' (de Haan & Livingstone, 2009, p. 6). Such assertions recognise that maximising children's safety online is intimately connected to their capacity to leverage the opportunities of engaging online.

Recent policy and practice has begun to emphasise responses that foster children's right to protection from harm while simultaneously empowering them to maximise the benefits of connectivity. This is an increasingly prominent feature of research and debates in the global North (e.g., EU Kids Online and the Young and Well Cooperative Research Centre). In the global South, this idea is beginning to shape policy and practice in some places (e.g., UNESCO Asia-Pacific Regional Bureau of Education, 2014) but it is far from widespread. Thus the challenge for research is to generate an evidence base across different national and cultural settings to underpin strengths-based initiatives that support children, parents, governments, community organisations and corporate entities to maximise opportunities online (Third et al., 2014b).

The relationship between risk, harm and resilience for children who engage in online settings is complex and poorly understood. We know that exposure to risk does not necessarily equate to harm. Indeed, research shows that most children benefit from experiencing some degree of risk because it enables them to develop resilience (Livingstone & O'Neill, 2014) and to maximise the opportunities online (Third et al., 2014a). However, more evidence is needed about the relationship between risk and harm on the one hand, and opportunities and benefits on the other, to enable children to enjoy protection, provision and participation rights in the digital age.

Research on the opportunities: the evidence deficit

There is a dearth of global research on the benefits and opportunities of children's online participation. Existing evidence is often patchy, focused on particular platforms or population groups, grounded in the anecdotal, or generated via short-term, one-off studies. Notably, while research has begun to generate evidence around the opportunities for young people

(see, for example, Collin et al., 2011; Third et al., 2014a), research into the online experiences of disadvantaged children is much sparser, as is research on children in lower-income countries, and on infants and younger children (Livingstone et al., 2014; UNESCO Asia-Pacific Regional Bureau of Education, 2014), despite the fact that internet access for children under the age of nine around the world has significantly increased in recent years (Swist et al., 2015). If there is a need for a more rigorous evidence base in the global North, the need is even more acute in the global South, where research has struggled to keep pace with the rapid migration online – which includes a growing proportion of children (ITU, 2014) – particularly via mobile platforms. The lack of evidence limits the capacity of parents, policy-makers and practitioners to develop responses that support children's rights in the digital age. In meeting the need for a more systematic and comprehensive evidence base, the challenge for researchers is not just to document and analyse the opportunities, but also to better understand the conditions under which children can access such opportunities. Achieving this, in turn, depends on nurturing and enhancing the skills and capacities of the global research community – including researchers based in policy or practitioner settings.

It is also important that such evidence is produced in ways that enable it to be used to promote children's rights. Generating this evidence is only the first step – it is equally important for researchers to share the results with communities and institutions so that the evidence can shape initiatives targeting children's digital practices. The resources available to translate evidence into policy and practice are always constrained, but researchers can be strategic when conducting their research so that the evidence has clear policy and practice impact (see Section on Knowledge translation and engaged research).

Case study: Children's rights in the digital age: a download from children around the world

In 2014, 148 children from 16 countries and speaking eight different languages participated in workshops to share their views on their rights in the digital age. The findings show that digital media are fostering children's rights by enabling

them to be agents of change, and creators and receivers of innovative approaches to community, health, well-being, education, safety, inclusion and civic participation. The project – a joint effort between the Young and Well Cooperative Research Centre, Western Sydney University, the Berkman Center for Internet and Society at Harvard, and UNICEF, in partnership with the Digitally Connected Network – developed a workshop methodology that uses creative content production activities to elicit children's views on the risks and opportunities online. The full workshop methodology can be found at www.westernsydney.edu.au/__data/assets/pdf_file/0012/1102062/RErights_workshop_manual.pdf.

What are the benefits and opportunities?

It is useful to distinguish between 'benefits' and 'opportunities'. Benefits are the positive (often quantifiable) impacts experienced by children. Opportunities are subtly different: they are defined here as the capacities – or, following Sen (1999) and Nussbaum (2011), capabilities – of children to imagine and mobilise digital media to thrive in their everyday lives. Opportunities have a material and/or structural dimension inasmuch as 'offline and online structures … may enable or constrain young people's activities' (Livingstone & Helsper, 2007, p. 5). Opportunities also have an imaginative or symbolic dimension that informs how children action them. Children's capacities to mobilise the opportunities of online engagement are therefore grounded in their skills, routines and practices, and also in their attitudes and dispositions.

While benefits are often tangible and quantifiable, opportunities are more abstract and can be more challenging to research. Quantitative measures of time online, frequency of use, online practices, skills, knowledge and attitudes do not necessarily provide a window on the 'the wide range of physical, digital, human, and social resources that meaningful access to ICT entails' (Warschauer, 2003, p. 14). Researching the opportunities requires approaches that can capture children's lived experience of using technology, and account for the social, cultural, economic, political and place-based contexts that shape their digital engagement, as well as their aspirations.

Research is far from having comprehensively mapped and measured the full range of benefits and opportunities afforded children online. Nonetheless, recent reviews of the existing literature on children's use of social media identify a broad range of potential benefits and opportunities, spanning the domains of education, health, sociality, civic life, recreation, and consumption (Collin et al., 2011; Swist et al., 2015). These include:

- supporting formal and informal educational outcomes and extending knowledge networks;
- facilitating supportive friendships and promoting a sense of belonging, community and self-esteem, and extending social support;
- fostering positive identity formation, community-building and creativity;
- promoting young people's capacity to successfully adapt to change and stressful events, and to respond to the risks associated with online interaction (resilience);
- developing (media) literacies;
- promoting positive norms about health and well-being;
- supporting the self-directed learning and aspirations of marginalised young people;
- providing new leisure, play and recreation spaces for children that promote learning, creativity, identity formation, socialisation, relaxation and stress relief;
- creating new spaces for young people's civic and political engagement by opening up opportunities for diverse forms of participation, self-expression, and creatively addressing social issues;
- fostering family and intergenerational relationships that leverage different forms of expertise – including knowledge and skills of children and young people, peers, family and other adults – to promote safety, well-being and resilience.

Underscoring the relationship between risk and opportunity, Swist et al. (2015) also note that each of these opportunities brings exposure to risks. For example, while digital media present many possibilities for enhancing children's mental and physical health, they can also exacerbate underlying health issues or predispositions if online engagement is not balanced with other activities. Identifying the 'tipping points' where opportunity converts to the potential for harm for

different groups of children in diverse settings remains an ongoing priority for research.

Case study: Ladder of opportunities

The EU Kids Online 'Ladder of opportunities' framework developed by Livingstone and Helsper (2007) provides a useful perspective on how children's age, gender, exposure and expertise shapes their access to different kinds of opportunities online, drawing attention to the way children's offline lives powerfully shape their online lives. In doing so, this work connects children's capacity to maximise the benefits and opportunities of being online to broader patterns of social inclusion and exclusion, reminding us that the research task is that of 'capturing the range and quality of use, transcending simple binaries of access/no-access or use/non-use' (Livingstone & Helsper, 2007, pp. 4–5) and 'identifying the benefits, and tracking them over time and for different population sectors' (Livingstone & Helsper, 2007, p. 14).

In the global North, there is still an evidence gap around how to support children to move up the ladder of opportunities so that they may engage in 'more creative and participatory activities' (Livingstone et al., 2014, p. 18). However, they also note that little is known about 'whether the ladder takes a different form in different cultural contexts' (Livingstone et al., 2014, p. 22). As more users come online in the global South, it is essential that researchers generate data around internet diffusion that enables countries to develop policy and practice that maximises the benefits and opportunities for children.

Accessing and making the most of opportunities

While children's access to the internet is rapidly increasing across the globe – particularly in the wake of mobile internet access – 'mere access' does not 'ensure equality of opportunity' (Livingstone & Helsper, 2007, p. 3), and 'efforts are needed to ensure that children gain the full benefit of ICT along with the skills necessary to use the internet wisely and well for learning, entertainment and social opportunities' (Livingstone et al., 2014, p. 22).

"While children's access to the internet is rapidly increasing across the globe – particularly in the wake of mobile internet access – 'mere access' does not 'ensure equality of opportunity'…"

Based on EU Kids Online studies with children in the UK, Australia and Brazil, Livingstone et al. (2011) identify a 'ladder of opportunities' associated with children's online practices, whereby access to opportunities online intensifies in line with children's exposure to and confidence in using digital media for an increasingly broader range of activities as they grow older. Children appear to follow a remarkably consistent 'staged' process of 'going online', which – ideally – sees them progressively develop new skills and increase the scope of their engagement over time. 'Basic users' focus on seeking information. 'Moderate users' participate in games and use email, thus adding entertainment and communication to information seeking. 'Broad users' add instant messaging and downloading music to their suite of practices, and use the internet to expand their peer-to-peer engagement. And 'all-rounders' embrace a wide variety of interactive and creative uses in addition to the practices of their peers (Livingstone & Helsper, 2007, p. 9). Exposure to the broadest range of opportunities online appears to increase steadily as children move from 'basic' use to 'all-rounder' use.[2]

Importantly, 'although digital access and literacy is growing apace, the evidence shows that many of the creative, informative, interactive and participatory features of the digital environment remain substantially underused even by well-resourced children' (Livingstone et al., 2014, p. 4). Only 27 per cent of children in Livingstone and Helsper's UK study reached the status of 'all-rounders', indicating that there is much scope to further promote the opportunities of being online for larger numbers of children. As the authors summarise:

> "The findings support the implicit yet widespread policy assumption that basic use makes for a narrow, unadventurous, even frustrating use of the internet, while more sophisticated use permits a broad-ranging and confident use of the internet that embraces new opportunities and meets individual and social goals." (Livingstone & Helsper, 2007, p. 14)

Notably, this study shows that the capacity of children to benefit from their online participation is dependent on 'age, gender, [socioeconomic status and …] amount [and frequency] of use and online expertise (skills and self-efficacy)' (Livingstone & Helsper, 2007, p. 5). In this respect, capacity to make the most of opportunities online appears to reflect broader trends shaping children's social inclusion. Those who are socially included are more likely to access the full range of benefits of engaging online, while children who are marginalised are less likely to do so.

"Research consistently shows that, for a variety of socio-structural reasons, some groups are less likely to have ready exposure to online opportunities."

As Selwyn notes, 'a lack of meaningful use ... is based around a complex mixture of social, psychological, economic and, above all, pragmatic reasons' (2004, p. 349).

Research consistently shows that, for a variety of socio-structural reasons, some groups are less likely to have ready exposure to online opportunities (see, for example, Metcalf et al., 2008), and such children are more likely to experience harm as a consequence of exposure to online risks than others.[3] Such groups include children living with chronic illness or disability; gender-diverse young people; First Nations children; refugees; newly arrived migrants; children

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[2] Interestingly, Livingstone and Helsper's data indicates that children's entertainment and communication activities online constitute a pathway to accessing a broader range of opportunities online, 'these being the activities, for children and young people at least, that encourage broader and more confident use of the internet. In this way, the habits and skills that underpin more advanced or all-round take up of online opportunities are established' (Livingstone & Helsper, 2007, p. 14).

[3] In making this claim, we must recognise the fact that 'disadvantage', 'marginalisation' or 'vulnerability' is not a straightforward predictor of vulnerability online. Indeed, there are some instances in which children who are classified as 'vulnerable' demonstrate exemplary levels of resilience in their use of digital applications, programs and services, and deploy digital media to benefit their well-being. The challenge is to better understand how such examples of resilience might be translated to larger numbers of children both within and beyond 'vulnerable' communities.

experiencing homelessness; and children whose primary language is other than English.[4] So, too, entrenched socioeconomic disadvantage negatively impacts children's capacity to benefit from engaging online (Metcalf et al., 2008). In short, those who are more vulnerable offline are more vulnerable online (Barbovschi et al., 2013), and efforts need to focus more precisely on supporting these children (Livingstone & Bulger, 2013; Livingstone & O'Neill, 2014; Kleine et al., 2014) and fostering their abilities to take advantage of opportunities. However, lack of evidence limits our capacity to respond to the needs of such children. While existing research provides 'some insights on difference according to gender and socio-economic advantage, there is a lack of close analysis on other aspects of lived experience (such as geographical location and culturally and linguistically diverse backgrounds)' (Swist et al., 2015, p. 7).

"Online engagement can support disadvantaged children to develop skills and literacies that translate across online and offline settings, positioning them to take advantage of broader educational and work opportunities, now and in the future."

Although some evidence points to the fact that engaging online can exacerbate existing vulnerabilities (Livingstone & Bulger, 2013), other evidence shows that, under the right circumstances, disadvantaged or vulnerable groups stand to benefit from engaging online (see, for example, Robinson et al., 2014; Third & Richardson, 2010). Online engagement can support disadvantaged children to develop skills and literacies that translate across online and offline settings, positioning them to take advantage of broader educational and work opportunities, now and in the future (Third et al., 2014a).

"Engaging online can help disadvantaged children to access information and build

communities of interest and broader support networks."

Engaging online can also help disadvantaged children to access information and build communities of interest and broader support networks, thus improving their well-being and capacity to enact their rights. Gender-diverse young people, children living with disabilities, and children living in rural locations all stand to benefit from the support that online communities can provide when their capacity to connect with face-to-face friendship and support networks is limited (Robinson et al., 2014; Third & Richardson, 2010).

Harnessing the power of digital media to provide disadvantaged or marginalised children access to programmes and services has 'the potential to generate a step change in the well-being of those children and young people who stand most to gain from the benefits social media offer. Such efforts must not only be informed by research, but by the views and preferences of children and young people themselves' (Swist et al., 2015, p. 7).

Access and digital literacy: preconditions for opportunities

The existing literature highlights that two minimum criteria underpin children's ability to harness the basic opportunities of being online; namely (a) consistent and reliable access to the internet and (b) appropriate levels of digital literacy – the technical, social and higher-order evaluative skills (Third et al., 2014b) – that enable children to navigate and make sense of the internet.

Recent studies show that access remains a challenge for many children around the world, and thus demands a more developed evidence base that can be used to drive enhanced connectivity (see, for example, Kleine et al., 2014; Livingstone et al., 2014; Third et al., 2014a). While many nations are in, or approaching, the position of having reliable statistics on technology uptake, this has not necessarily yielded a

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[4] The dominance of English-language information and resources online must be addressed if children globally are to access the benefits and opportunities of connectivity. While the emphasis of discussions about the opportunities of engaging online frequently focus on participation, it is clear that children's provision rights must be more firmly centred within global research, policy and practice agendas.

comprehensive understanding of the obstacles to and drivers of online access.

"Recent studies show that access remains a challenge for many children around the world, and thus demands a more developed evidence base that can be used to drive enhanced connectivity."

Further, resolving the issue of access need not replicate the 'one device per person' model that predominates in the global North. Indeed, there are instances where the sharing of devices among children and their friendship and familial networks may strengthen interpersonal and community ties, both online and offline (Third et al., 2016), opportunities that are not necessarily afforded by the individualised model of technology access that prevails in the global North. The criteria for defining appropriate access may look radically different from one setting to another, so researchers must be ready to redefine access to reflect specific conditions, and to be receptive to the possible benefits and opportunities that flow from alternatives to individual access. This is particularly pertinent for research on children's access in low-income countries.

Turning to literacy, it is clear that both individuals' and communities' capacity to harness the opportunities of the internet reflect broader levels and patterns of literacy (Swist et al., 2015). Research indicates that, while greater exposure to the internet introduces greater risks to children, it is also a predictor of enhanced digital literacy and, therefore, of increased benefits and opportunities. That is, 'for children and young people, it seems, the more literacy, the more opportunities are taken up' (Livingstone & Helsper, 2007, p. 5). In order to minimise the risks and capitalise on the opportunities available via online engagement, children must be able to develop appropriate levels of digital literacy. However, digital literacy is profoundly affected by broader forms of literacy, education levels and other socioeconomic factors that shape children's everyday lives (see, for example, Cho et al., 2003; Livingstone et al., 2004).

"In order to minimise the risks and capitalise on the opportunities available via online engagement, children must be able to develop appropriate levels of digital literacy."

It is also affected by the availability of platforms, software, resources and content in children's first language. Such issues of provision affect children's capacity to develop digital literacy and can limit their opportunities online. Given these complex factors, any approach to researching the opportunities for children online must be able to account for the role that digital literacy and issues of provision play as preconditions for accessing opportunities online.

MAIN APPROACHES

Researching the benefits and opportunities for children of participating online is a challenging task. Research in this field is still a relatively new endeavour, and there is much scope to experiment with new ways of generating meaningful evidence. This section outlines key considerations that underpin approaches to documenting the benefits and opportunities, and better understanding the conditions under which children might make the most of their online experiences, not just for their digital interactions, but also for their lives more broadly.

In the global North, researchers have begun the process of defining and documenting benefits and opportunities, but there is still much to be done to develop research processes that can grasp the ways children in industrialised contexts conceive and enact opportunities online. In the global South, commentators have noted the limited availability of 'comparable baseline data and policy and programme evaluations' (UNESCO Asia-Pacific Regional Bureau of Education, 2014, p. 35) to inform policy and initiatives relating to children's digital practices in general. In this context, researching benefits and opportunities might appear to be a lower priority than generating baseline evidence on uses, competencies and potential risks and harms. Certainly, the impact of the rapid uptake of online technologies in the global South has highlighted the need for developing nations to take action around safety and security issues such as bullying, child trafficking and youth radicalisation (UNESCO Asia-Pacific Regional Bureau of Education, 2014). However, precisely because the global South evidence base is embryonic, there is scope to develop tools and processes for researching the risks and opportunities in tandem, in a way that has not been possible in the global North (due to the dominance of the risk and safety paradigm). By doing so, researchers in these settings can support policy-makers and practitioners to develop holistic policies and initiatives that maximise the relationship between risk and safety to enable more children to benefit from online engagement. Further, researchers in the global South are well positioned to play a leadership role in developing tools and methods for generating data about the benefits and opportunities alongside other aspects of digital life, such as risk and safety.

Researching the benefits and opportunities for children online – whether in the North or the South – requires flexible and inventive approaches that draw on and extend the existing methodology. In taking up the challenge of experimenting with new approaches, researchers in different settings have much to learn from one another. In the global South, considerable attention has been paid to how research practice in developing world settings might leverage tools, methods and lessons from the global North. It is argued that this enables global South researchers to generate comparable data sets in resource-efficient ways (for a discussion, see Livingstone et al., 2014, p. 10; UNESCO Asia-Pacific Regional Bureau of Education, 2014, p. 45). In this context, researchers and other stakeholders are 'encouraged to initiate and/or engage in activities that promote exchange of knowledge and good practices … for possible replication or scaling up of interventions' (UNESCO Asia-Pacific Regional Bureau of Education, 2014, p. 45).

However, such one-way flows of knowledge from North to South are acknowledged to be problematic. In the South, 'researchers have observed that most of the relevant research has been done in the context of industrialized nations i.e. Europe and North America' (UNESCO Asia-Pacific Regional Bureau of Education, 2014, p. 3), and that the methods and findings do not always readily translate to lower-income countries or countries where mobile media are the primary point of internet access. It is increasingly recognised that research needs to respond to the specific contexts and needs that shape children's online practices in developing nations, and that this requires customised research tools and methods (UNESCO Asia-Pacific Regional Bureau of Education, 2014, p. 50). When it comes to studying the benefits and opportunities of children's online engagements, research in the North is not sufficiently advanced to always provide strong guidance for researchers in the South, so the opportunity is ripe for mutually beneficial collaboration. Effective collaboration can deliver innovation in methods and tools, and advance the field internationally.

Case study: Researching opportunities online in the global South: key challenges

A recent report has noted that research in the South needs to respond to: '(a) huge diversity (geography, population, culture, value and belief system, ICT and broadband penetration, socioeconomic status, etc.); (b) a higher mobile penetration than computer-based access and internet penetration; (c) wide-ranging issues regarding ICT use that include safety and security issues, persistence of digital gaps, and protection issues against bullying, child trafficking, and online terrorism, among others; and (d) youth as key drivers to ICT uptake and use' (UNESCO Asia-Pacific Regional Bureau of Education, 2014, p. 50). At a recent seminar held at the London School of Economics and Political Science, researchers reported a consistent set of challenges in conducting and promoting research about the opportunities for children online. These include:

1. Children's deeply stratified access to digital media and levels of digital literacy.

2. A deep access-and-use divide between children in rural and urban settings.

3. The rapid pace of technological change – in particular, children's fast-paced migration online via mobile media – compared to the long timelines associated with quality research.

4. Limited literacy that prevents children from understanding and responding to survey or interview questions.

5. A deep disconnect between children's lived experiences and adults' assumptions about 'life online'.

6. The limitations of conducting research with vulnerable children who are 'hard to reach' using conventional research methods (e.g., children living in slums; homeless children; rural children).

7. Assumptions built into survey methods validated in the North (e.g., individualised technology access; access from home rather than internet cafes or mobile media etc.).

8. Cultural factors that affect sampling, response rates and children's capacity to respond to questions about sensitive issues of agency, sexuality and risk.

9. A preference by policy-makers for rankings and statistical data that elide the contextual nuances and high-quality data that are valued by researchers.

10. Difficulties navigating political sensitivities given the dominance of the risk and safety paradigm.

11. The prevalence of media panics that inspire strict legislative responses centring on children's protection, creating an environment that is not open to evidence about opportunities online (Livingstone et al., 2014).

While there are no simple solutions for working around these constraints, these challenges point to the need for innovative methods.

Quantitative or qualitative approaches?

A key decision is deciding what kind of data will best answer the research question at hand: Quantitative data (survey instruments and statistical analysis)? Qualitative analysis (interviews, focus groups or forms of visual data or creative content and so on)? Or a mixed-methods approach? All three approaches have strengths and limitations.

There is a wide range of statistically validated quantitative measures that will generate internationally comparable data (see Section Quantitative survey instruments targeting benefits and opportunities). Quantitative approaches are particularly useful in generating baseline data about uses and practices.[5] Some quantitative survey instruments are also designed to elicit information about the attitudes or dispositions that underpin children's capacities to

[5] As the technology landscape is changing fast, researchers need to ensure that they use up-to-date measures. For example, 'time spent online' (a meaningful measure of children's use of the internet 10 years ago), is less useful in the world of smartphones and continuous connectivity.

maximise opportunities online (see, for example, Third et al., 2016). However, researchers need to be wary of over-reliance on quantitative methods for generating data relating to the more relational, imaginative or symbolic dimensions of online opportunities. Open-ended qualitative formats are arguably more suited to generating this kind of data.

There are also practical considerations. Quantitative surveys are often costly to develop and implement. Online surveys are cheaper but not always appropriate, particularly in settings where the digital literacies of the target population are limited, or where online access is unreliable, primarily mobile, or unevenly distributed across the population.

Case study: Measuring the benefits and opportunities: existing quantitative instruments

A pool of high-quality, validated measures is available to researchers who wish to investigate benefits and opportunities for children online. While none of these survey instruments focuses solely on the benefits and opportunities, each is concerned, to varying degrees, with identifying the affordances of digital spaces in relation to other key themes (risk and safety, civic and political engagement, mental health and well-being and so on). As such, they provide a useful reference point for those who wish to conduct quantitative surveys on the benefits and opportunities. Some recommended studies include:

a) Bellerose et al. (2016): measuring digital capacities

b) Livingstone and Haddon (2009): risk and safety for children on the internet

c) Helsper et al. (2015): internet skills

d) Livingstone and Helsper (2007): ladder of opportunities

e) Humphry (2014): risks and opportunities for people experiencing homelessness

f) Loader et al. (2014): young people's civic and political participation

g) Burns et al. (2013): the mental health and wellbeing risks and benefits for young people of engaging online

h) van Deursen and van Dijk (2015): internet skills and the digital divide

Further quantitative studies can be found in the section *Quantitative survey instruments targeting benefits and opportunities.*

By contrast, qualitative data works with much smaller population samples to analyse the interrelationship between digital practices and everyday contexts. A well-designed interview or focus group can yield game-changing insights about the social and cultural dimensions of digital practices, providing a window on, for example, how individuals navigate the complex relationship between risk and opportunity online; how they use digital media to open up educational opportunities for themselves; and how friendship and familial structures limit or enhance online opportunities. When done well, small-scale, agile and iterative qualitative research can be a powerful research practice that yields forms of knowledge with far-reaching impacts. It is 'important to recognize the value of "small data".

Research insights can be found at any level, including at very modest scales…. The size of the data should fit the research questions being asked; in some cases, small is best' (boyd & Crawford, 2012, p. 670). However, generating qualitative data is resource-intensive. It requires a patient and skilled researcher who is not only prepared to talk with and listen carefully to his or her research participants, but is also able to dedicate time to the transcription, analysis and communication of such data. This said, a small-scale qualitative study might significantly advance knowledge of particular experiences, populations or communities of interest without requiring extensive financial resources.

Perhaps the strongest approach, providing the availability of adequate funding, is a mixed-methods approach. By combining large-scale quantitative data with small-scale qualitative analysis, researchers can draw connections among the micro, meso and macro factors shaping children's access to opportunities online, enabling a more holistic view.

Much depends on the nature of the policy and practice

landscape the researcher wishes to influence. In some settings, statistics will speak more powerfully. In other settings, policy-making is becoming ever more open to the power of 'telling stories' that can bring anonymised statistics to life. When making decisions about how to structure a study, the researcher must have a clear sense of how they wish to intervene in broader debates; take into consideration the nature of the questions that need to be answered; and ensure that the available resources can be maximised for the best possible impact.

Case study: Measuring digital capacities

In 2015, a team at Western Sydney University developed a Digital Capacities Index to generate evidence about individuals' and communities' capacities to mitigate the risks and leverage the opportunities of online engagement. The tool was piloted with Australian families. Drawing on the Circles of Social Life approach (James et al., 2014), the team analysed existing measures of digital practice to identify indicators that could be used to elaborate the relationship between risk and opportunity. This was complemented by a series of qualitative case studies with a diverse sample of Australian families that were used to refine the survey instrument. The resulting Digital Capacities Index seeks to provide a holistic measure that:

a) illuminates the relationship between risk and opportunity in users' everyday online engagements;

b) moves beyond the dominant focus on the individual as the unit of analysis to capture the family, community and intergenerational dynamics shaping digital capacities;

c) documents the role that attitudes and dispositions play in shaping the ways individuals and communities think about the affordances of being online;

d) brings to the centre diverse experiences of engaging online.

The report on the pilot phase can be found at digitalcapacities.org. This example demonstrates how qualitative and quantitative forms of research are usefully combined to investigate the opportunities and benefits of being online.

Participatory and child-centred methods

As noted above, research on the benefits and opportunities of being online has sought to document the benefits of children's engagement in the digital world for their digital literacy, education, health, and civic or political participation. However, this research often focuses on adult-defined benefits and opportunities, so more attention needs to be given to the ways that children themselves conceptualise and realise the potential for their digital participation to enhance their lived experience (Third et al., 2014a). It is vital that research uses participatory, child-centred approaches, particularly in the global South where children are driving the uptake of digital technologies (ITU, 2014). Child-centred approaches enable evidence to drive policy and practice that connect with children's experiences and thereby maximise the benefits and opportunities. Further, a child-centred approach is necessary if we are to deliver on the promise – enshrined in the United Nations Convention on the Rights of the Child (UNCRC) – to promote children's participation rights and embed their insights and experiences in the decision-making processes that affect them (see, for example, Article 12, UNCRC).

But the task of centring children's insights and experiences in research is by no means straightforward. In practice, it is very difficult to centre children's insights in research without falling prey to 'tokenism', colonising their viewpoints (Jones, 2008) or imposing adult-centred frames of meaning (I'Anson, 2013). In seeking to better understand children's experiences, researchers must be wary of claiming to 'represent' children's views. But researchers can reflect on, and play a crucial role in interpreting, what children have to say, and then use children's perspectives to open up new ways of thinking about the benefits and opportunities of being online. By remaining highly attuned to the ways children make sense of their online practices, researchers can play a pivotal role in opening up the research process and its outputs – along with the accompanying processes of policy-making and product and service design – to interrogation and critique by children.

Generally speaking, one-off consultations are not sufficient to understand children's perspectives. Clearly, the availability of resources often determines the possibilities for engaging children in research, but involving children in some capacity is preferable to not involving them at all. Wherever possible, researchers should aim to actively include children across the life of a research process. That is, rather than thinking about children as objects to be studied, we might think of children as co-researchers who are involved in all phases of a research project, from defining the issues to be investigated and designing the methods that will be used to elicit children's perspectives, through to the analysis, interpretation and communication of the results. Approaching the task of documenting the benefits and opportunities of online participation in this way enables children's insights and experiences to shape data gathering and recommendations about how to enhance their opportunities in the digital age. Moreover, this approach can have a pedagogical effect inasmuch as it supports children to develop the awareness, conceptual frameworks, skills and literacies to make sense of the opportunities afforded them by the digital age and, in doing so, can encourage them to become agents for change.

"Rather than thinking about children as objects to be studied, we might think of children as co-researchers who are involved in all phases of a research project."

This said, the task of asking children to reflect on the opportunities associated with their digital practices is challenging. The success of online safety campaigns in many parts of the world in increasing children's awareness of the risks they face online means that many children take active steps to ensure they participate safely. However, the flipside is that the risk and safety paradigm tends to dominate children's ways of thinking and talking about their digital practices. For example, a recent international participatory study with 148 children in 16 countries demonstrated that:

> *"Children in many parts of the world today have inherited a popular discourse that is characterized primarily by fear – if not moral panic – and … this potentially inhibits their capacity to imagine and articulate the opportunities digital media affords them." (Third et al., 2014a, p. 40)*

While children in this study were highly competent in naming the risks they face online and the strategies they might use to mitigate them, they were much less able to imagine the opportunities afforded them by their online engagements (Third et al., 2014a).

"Children's capacity to benefit from engaging online is deeply tied to how and where they live."

Further, children's perceptions of their digital engagement are frequently dominated by adult-centric frameworks and ideas, meaning that they tend to fall back on adult conceptions of both the risks and the opportunities when making sense of their digital practices. In short, children are not always given the chance to develop their own framings of their digital practices. For researchers interested in children's views on the opportunities and benefits of participating online, this presents a persistent challenge that requires inventive approaches to overcome. Researchers need to not simply document children's views, but also open up spaces for children to develop their own languages for thinking and talking about the digital world. To this end, research on the opportunities and benefits of the internet must proceed with the understanding that research is not only about the 'objective' documentation of what happens in the world, but is also always already about intervention, or, as Michael observes, research does not simply reflect what is 'out there' but 'is instrumental in, and a feature of, the "making of out theres"' (2012, p. 26).

The importance of context

Children's capacity to benefit from engaging online is deeply tied to how and where they live. Contextual factors profoundly shape children's access to the benefits and opportunities of connectivity; the opportunities are mediated by their developmental stage, socio-demographic factors (Livingstone et al., 2014), and the 'shared communication and familial conditions in which children and young people live and grow up' (Swist et al., 2015, p. 7). Infrastructural, institutional and regulatory environments also shape the opportunities available to, and taken up by, children online. While it is not possible for every study to take all contextual issues into consideration, it is important that researchers prioritise understanding children's digital practices in context, and that they are

clear about the contextual connections they are seeking to elaborate.

Relational contexts are one important backdrop against which children foster opportunities online. To date, much of the literature has focused on the impacts for individuals. However, many of the benefits have a social or collective dimension that is not always readily captured using existing measures. For example, we know that those who have supportive networks are better positioned to take advantage of opportunities online than those who do not:

> *"In many developing countries, technology is not yet embedded in the learning experience, and for many children, learning responsible and productive use of new technologies is not supported by the adults in their lives. More research is needed to identify effective interventions for improving parental support for children's technology use and also training and support for teachers to better integrate technology into the learning experience."* (Livingstone et al., 2014, p. 22)

Similarly, in the focus on 'the digital world', it is sometimes overlooked that the capacity to experience benefits and opportunities online are deeply connected to the opportunities available to children in their offline worlds. As research with children consistently shows, children do not necessarily neatly distinguish between 'the online' and 'the offline'; rather, the online is just another setting in which they carry out their lives (Third et al., 2011), and children's offline lives profoundly shape the ways children make sense and take advantage of the opportunities online (Livingstone & Helsper, 2007).

Expanding our approaches to the benefits and opportunities for children online to capture their relational or networked (boyd, 2010) dimensions, as well as the relationships between online and offline practices, must be key components of the approach to generating evidence.

Case study: Four dimensions of online practices – studying the benefits and opportunities in context

Swist et al. (2015, pp. 4–5) identify four dimensions that influence children's ability to access benefits and opportunities online. These provide a useful point of departure for understanding the benefits and opportunities associated with children's online practices in context. The four dimensions are:

i) Technical: access to and use of technological infrastructure, devices and software, and connectivity.

ii) Material: text, image and interactional 'artefacts' that are generated and rendered visible via digital platforms and devices.

iii) Social: the interpersonal connections and networks that operate at peer, family, local and global scales.

iv) Motivational: the values and drivers that underpin children's approaches to and use of digital media.

While research has begun to document the technical, material and social aspects of children's online practices, it has been slower to account for children's motivations and to think through the intersections between these four dimensions. This is partly because much research emphasises quantitative measures, which are not always well adapted to understanding children's motivations or of taking the 'deep dive' that is necessary to map the complex interplay between the technical, material, social and motivational dimensions of children's online practices. However, the overarching neglect of children's motivations in the existing literature also results from adult-centred approaches to evaluating the opportunities afforded by children's online engagement. Approaches that centre children's insights and experiences, combined with a focus on these four dimensions, can generate evidence that accounts for the contexts shaping children's access to opportunities.

Benefits and opportunities in different cultural settings

The benefits and opportunities associated with children's online practices do not necessarily look the same in different national and/or cultural settings. Research must focus more systematically on illuminating the ways that children's online practices are shaped by different social, cultural, political and economic contexts, as well as the tensions between the global, the national and the local.

There is a range of readily available, validated measures and methods available to do this, so researchers have no need to 'reinvent the wheel'. These tools enable researchers to generate internationally comparable data, which can be used to compare children's digital practices in one setting with other children around the globe. This can in turn provide the evidence to improve policy and practice in specific national or cultural settings.

"Prioritising internationally comparable data need not preclude collecting data that reflects the richness of local uses and practices."

However, prioritising internationally comparable data need not preclude collecting data that reflects the richness of local uses and practices. Developing approaches that account for local specificities – approaches, that is, which can recognise, document and make sense of the benefits and opportunities in context-specific ways – can open up productive new ways of thinking. For example, the implicit assumption that access to the latest technology provides children with the best access to opportunities is rebutted by research showing that children in the global South often develop highly inventive workarounds using 'outdated' technology. The Zambia U-Report is a case in point – children in Uganda are using analogue mobile phone technology to access up-to-date sexual health information that supports them to live healthy lives (Zambia U-Report, no date). In other words, the assumptions underpinning our approaches need to be constantly re-examined to ensure that they can generate meaningful evidence in different national or cultural settings.

"Conventional research methods may not (in and of themselves) be adequate to the task in particular settings."

Conventional research methods may not (in and of themselves) be adequate to the task in particular settings. New research tools are needed, and there is scope for researchers working in the global South, or with groups of children who have been under-represented in research to date, to develop new tools and methods that can better account for the diversity of children's experiences. Approaches that can grasp the tensions between 'universal' benefits and opportunities and locally inflected experiences have much to offer global research and must be prioritised.

Accounting for difference

There is an urgent need for research approaches that can better account for the experiences of diverse population groups engaging online. Research in the field of children's digital practice – more so than in many other fields – is deeply intertwined with the development of policy and practice. Globally, policy-makers and professionals who work with children are calling for more evidence that can underpin products, policy-making and service development.

"It is important to centre the needs of diverse groups in initiatives that are designed for the mainstream."

Too often, digital initiatives target the mainstream first and then tailor them to special interest groups. In the case of disadvantaged or vulnerable children, this places an unnecessary burden on the organisations supporting such groups to develop (and pay for) bespoke products and initiatives. This means that the work is often not undertaken in a timely manner or worse, that the needs of these groups are not met. In the case of children under the age of nine, 'findings from older groups are [often] simply extrapolated to younger children' (Swist et al., 2015, p. 7), eliding complex developmental issues. It is thus vital that our approaches to researching the benefits and opportunities work closely with such groups to bring their needs and desires to the fore so that the resulting evidence can be mobilised by policy and practice.

It is important to centre the needs of diverse groups in initiatives that are designed for the mainstream (Third et al., 2016), to generate evidence that enables corporate, government and community organisations to design all technology-based initiatives for the most vulnerable children. Bringing difference to the centre in this way ensures that the most vulnerable children can be appropriately served without reproducing or exacerbating existing vulnerabilities, but it is not always easy to do. There are both ethical and practical issues in developing strategies to identify and study younger and 'hard-to-reach' children.[6] Researchers must not shy away from the task of understanding the interplay between risk and opportunity online for these groups. It is crucial that such efforts are guided by expert practitioners, successful practice insights, ethical standards and children themselves.

Knowledge translation and engaged research

Enhancing the capacity of larger numbers of children to access opportunities is dependent not only on children themselves but also on institutional and community-based transformations. To ensure that research feeds into policy and practice, it is vital that researchers clarify their knowledge translation goals and put processes in place to facilitate them from the outset. Limited resources may prevent elaborate knowledge brokering and translation efforts, but researchers should, wherever possible, nurture relationships with key personnel or knowledge networks that are positioned to translate the findings. This can be as simple as contributing to online discussions, writing for the mainstream media, or meeting with policy-makers or child-focused organisations to discuss the project and its findings.

"To ensure that research feeds into policy and practice, it is vital that researchers clarify their knowledge translation goals and put processes in place to facilitate them from the outset."

Researchers might also consider taking an 'engaged research' approach. This entails collaborating with children, researchers, government, industry and not-for-profit organisations to define and set the research agenda, design and deliver the necessary studies, and implement the results (Third, forthcoming). Working in the engaged-research mode ensures that research outputs are designed for ready uptake, and gives researchers a powerful agenda-setting role by fostering active dialogue within a 'community of practice' (Wenger, 2000).

"On the more engaged end of the spectrum, children, government, corporate and community representatives become co-researchers who participate in the research process from study design through to the communication of results."

On the more engaged end of the spectrum, children, government, corporate and community representatives become co-researchers who participate in the research process from study design through to the communication of results. However, good results can also be gained by setting up an advisory panel of 'experts' (including children themselves) who meet regularly throughout the project to guide decision-making. Whichever approach a researcher takes, translation of the research should be planned for and given appropriate attention throughout the project. In this way, the researcher can bring the community along with them and ensure that research on the opportunities for children online has maximum impact.

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[6] While reaching the 'hard to reach' continues to present challenges for researchers, there is some evidence to suggest that using digital technologies to conduct research with vulnerable populations – particularly using methods that engage young people in generating digital creative content – may provide new ways to recruit the 'hard to reach' without requiring that they identify as vulnerable or excluded (see the Young and Well CRC project, 'Engaging Creativity Through Technologies' at www.westernsydney.edu.au/ics/research/projects/yawcrc/program_2#project2).

IDENTIFYING GOOD PRACTICE

As noted throughout this Guide, the global research community is still some way from having standardised, trialled and tested research tools and processes for researching the benefits and opportunities children encounter online. This section lays out key principles underpinning the design of research projects on this topic.

Key principles

Research must specifically examine the benefits and opportunities for children online.

To address the evidence deficit, all research on children's online practices should include questions on benefits and opportunities. Integrating such questions with other lines of inquiry illuminates the dynamics between risk and opportunity and generates knowledge to guide initiatives with the best possible impacts for children.

Research on children's opportunities online should deploy a rights framework in defining the opportunities to be researched, and developing and delivering research projects.

A rights framework can usefully guide how a research project defines 'opportunities and benefits' in any given context, ensuring that research foregrounds children's interests and experiences, and produces evidence that supports children's rights. Centring children's provision, protection and participation rights also ensures that a research project engages ethically with children; accounts for children's access to technologies, their language skills and literacies, and cultural factors that impact their capacity to participate in research; and interprets the opportunities and benefits online in relation to the potential risks and harms.

Children should be actively engaged in the research process.

Deploying participatory and child-centred approaches enables policy-makers and practitioners to design initiatives that respond to children's needs and desires, and that are best positioned for ready uptake.

Research should ideally facilitate spaces for children to imagine, and develop their own definitions and languages for talking about, the benefits and opportunities online. To do this, wherever possible, research should move away from a model of one-off consultations with children driven by pre-defined agendas towards long-term, iterative processes of talking and working with children. This not only enhances the impact of research, but can also build children's understanding of and capacity to maximise benefits and opportunities online.

Research should inform the development of and address policy and practice priorities.

Research has an important agenda-setting role in policy development. This is not simply a matter of producing evidence that illuminates existing policy priorities; it involves finding evidence that enables policy-makers and practitioners to plan for a future in which more children are better able to benefit from the full range of opportunities online. That is, research should attend to both present and future needs, and its translation into policy needs to be planned and given regular attention throughout a project. Wherever possible, policy-makers and practitioners should be engaged in designing and implementing research projects so that the findings have the broadest possible impact. Further, it is one thing to document children's experiences and perspectives, but it is another thing entirely to have children's voices heard in the forums where decisions are made that impact their lives online. Ideally, research will support institutions and communities to transform in order to better hear and respond to children's needs and desires.

Research should consider online benefits and opportunities in context, and be sensitive to issues of diversity.

Research must be responsive to the social, economic, cultural, linguistic, geographic and ethical factors that shape children's experience of participating online, so methods should be tailored to each particular context. Researchers should ideally work from the outset with stakeholders to define the opportunities in terms of

local relevance, and to design methods that can capture uses, competencies, attitudes and dispositions. Researchers must take into account children's access to digital media; their language skills and literacy; the socioeconomic, geographic, gender, religious and/or cultural factors affecting children's capacity to participate in research; and developmental factors. Wherever possible, research should seek to illuminate the relational dimensions of children's online engagements (e.g., peer-to-peer, intergenerational) and to situate children's online practices in their offline contexts.

Researchers should embrace the challenge of developing the necessary research tools and processes.

Researchers face the dual challenges of addressing the evidence deficit and also developing approaches to capture the complexities of children's experiences of opportunities online. Given the embryonic status of research in this field, researchers should be encouraged to inventively rework existing tools and methods as well as mobilising conventional methodologies. This might include drawing on online tools to extend digital research methods – seeing technology not only as an object to be studied but also as a potential tool and/or setting through which to research. Researchers might also develop methods that engage children in creating and sharing online content that can then be analysed. Research models need to balance international comparability of data with attention to the specifics of children's online opportunities in different settings; walk a line between 'ideal' research methods and affordability; and consider opportunities in light of the potential risks children face online. In short, there is great scope for seeking new ways of gathering and analysing data.

Researchers must prioritise the generation of data about children and infants, disadvantaged or vulnerable children, and children in lower-income countries.

While there is a need for internationally comparable, population-level data about the benefits of technology for children, it is equally important that research addresses the needs of the most vulnerable children, who stand to gain from engaging with technology. Given their potential to generate deep insights about children's everyday or lived experiences, qualitative

methods can often deliver the most meaningful data. In an ideal scenario, the rich explanation generated by qualitative data can be compared to quantitative/population-level findings to explicate the specific needs of vulnerable groups.

Research must interrogate the relationship between risk and opportunity online and different levels of access to opportunity.

While we know that opportunity and risk online are intertwined, we know relatively little about how to leverage this relationship to support children to benefit online. It is thus important that research not only documents the affordances of engaging online, but also produces evidence around the relationship between risk and opportunity. Importantly, research needs to identify the 'tipping points' where opportunity converts to the potential for harm for different groups of children. It is also important that research identifies the drivers that enable different groups of children in different settings to move up the ladder of opportunity and to benefit from a broader range of online activities.

Researchers should work collaboratively to guide the development of a comprehensive evidence base.

There is much scope to develop partnerships within and across national borders to facilitate knowledge sharing and comparative data. Such partnerships might entail researcher networks and collaborative projects, cross-sector collaborations and policy and practice networks (such as Digitally Connected, see below). Through a network of partnerships, the global research community can develop the necessary tools and resources, and produce a comprehensive evidence base on online opportunities to inform research, policy and practice.

Case study: Digitally Connected

Digitally Connected is a collaborative initiative between UNICEF and the Berkman Center (Harvard University, USA) that is building a multi-year partnership to analyse growth and trends in digital and social media among children and young people across the world. At the core of Digitally Connected is a network of academics, practitioners, young people, activists,

philanthropists, government officials and representatives of technology companies from around the world who are addressing the challenges and opportunities children and young people encounter in the digital environment. The knowledge-sharing functions of this network provide researchers, policy-makers and practitioners with opportunities to share and discuss emerging priorities and methodologies for supporting children to benefit from opportunities online (see www.digitallyconnected.org).

USEFUL ONLINE RESOURCES

Documentation of the benefits and opportunities for children online

boyd, d. (2013). *It's complicated: The social lives of networked teens.* New Haven, CT and London: Yale University Press. www.danah.org/books/ItsComplicated.pdf

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Global research and policy agenda

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Research on supporting vulnerable children's online engagements

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Additional resources

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Acknowledgments

CHECKLIST

This section contains a set of prompts to assist the researcher to design an appropriate study.

Issue	Things to consider
Defining opportunities and benefits	• How will you frame/define opportunities? Is it possible to engage children in defining the benefits and opportunities, or will you work from a pre-existing definition?
Defining the focus and scope of a study	• What process will you use to define the focus and scope of the study? What opportunities are there to engage stakeholders (including children) in defining the study's aims and objectives? • What is your budget and timeline? What scope is feasible within these constraints? • What are the gaps in knowledge about the opportunities and benefits in the specific setting in which you are working? • How will you account for the relationship between risk and opportunity in the study? • What are the current policy and/or practice priorities? Who is defining these priorities? How receptive is policy and practice to relevant research? • How can a research project on the opportunities and benefits usefully intervene in the policy and practice setting? How could evidence help to set the agenda for policy and practice? • Is the aim of the research to explore what the opportunities are; to assess children's ability to benefit from opportunities online; to understand the factors that support children to move up the ladder of opportunities; or to understand the tipping points where opportunity converts to the potential for harm for children online? In which kind of opportunities are you most interested (e.g., educational; social; economic, etc.), and why? • Who will be the target group? Will you focus on urban, rural or regional children? What age groups will you focus on? Will you focus on boys and girls? What is the rationale for this focus?
Methods	• How will you involve children in the study? How will you ensure their participation aligns with their protection, provision and participation rights? • Will children's participation in the study change the way they think about or enact their digital media practices? If so, how will you manage this/support children in the study? • Is it possible/desirable to involve children as co-researchers? • What different things can quantitative and qualitative data tell you about the opportunities you have decided to research? What combination of data will give you the best understanding of the issues? Who will read and/or promote the

data and what kinds of information do they consider compelling?

- Can you use technology as a setting for gathering data and conducting analysis? Could the study benefit from online surveys, focus groups or interviews? Are there digital methods for gathering data about children's online practices?
- Which research methods can shed light on the conditions that enable children to leverage opportunities online? Which methods can generate data about how different children navigate the 'ladder of opportunities'?
- How will you measure and/or investigate the relationship between risk and opportunity to ensure that you understand opportunities in context? How might you work with children to understand when opportunity converts to the potential for harm online?

Ethics

- What methods will enable you to draw conclusions about the relationship between opportunities online and offline?
- How will your study account for developmental factors and the different opportunities available to children at different life stages?
- What sample size will enable you to evidence the opportunities and benefits?
- How will you analyse the data and present it?
- How will you ensure children are safe and able to participate effectively?
- How will you accommodate digital media access, language and literacy differences?
- How will you ensure that vulnerable children and/or children with limited access to technology are represented in the study? If you won't represent such children, how will you frame the implications of your study for such children?
- Are there gender, religious or other factors that will impact the ways children think about the opportunities online and respond to research questions? How will your methods address these factors?
- How might cultural issues affect children's opportunities online and how might you take these into account?

Partnerships

- Who will support/work with you to deliver this project? What resources do they bring to the project? What roles will partners play in the project?
- How do the project partners conceive the opportunities and benefits of children's online engagements? What are the strengths and limitations of their approach? How can their knowledge be consolidated, extended or challenged in the context of the project? How will you draw on the anecdotal knowledge of project partners?
- How can partners be engaged in the research process (bearing in mind that they will probably derive most benefit from close, ongoing involvement)? How might the research benefit partners' work?
- Are there other partnerships that would be useful to the project (e.g., partners who have experience working with children to maximise the benefits of digital media, or partners who are well positioned to share the findings)? If so, at what point will you engage them, how, and what would you like to gain from the

partnership?

- Are there other researchers who have worked on similar issues? Would it be beneficial to engage with them?
- What international networks would be useful to the project? Why?