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Using global evidence to benefit children’s online opportunities and minimise risks

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Abstract

This article considers the challenges of conducting global research in a domain characterised by intense socio-technological change, complex ethical issues and contested policy choices. The domain chosen is that of children's rights in the digital environment, which poses challenges to policymakers regarding children's protection, empowerment and wellbeing. The article critically examines a particular project, Global Kids Online, which was designed to impact beneficially on policy and practice in this area through a coordinated, yet distributed, collaborative approach to cross-national research and impact. It examines the project's conception, implementation and emerging impact to illustrate some key challenges of evidence-based policy in a digital society and to discuss the lessons learned regarding the possibilities and limitations of impact effectiveness. Global Kids Online has developed an approach to address these challenges by building a multistakeholder and multinational research network and co-creating knowledge exchange and impact tools. These tools allow research evidence to reach and inform stakeholders as they formulate relevant policies, harnessing the capacity of the overall network in addressing different country priorities. The impact tools developed to support the processes of impact planning and monitoring are illustrated with a selection of country case studies demonstrating pathways to impact.

Keywords

digital environment; research impact; online opportunities and risks; global childhoods; internet policy and regulation

Challenges for policy regarding children's digital lives

Ensuring children's protection, wellbeing and rights in the digital environment is proving particularly challenging to policymakers for three main reasons. First, internet innovation and adoption are proceeding ahead of adequate policy and regulation, with children often as forerunners of new digital technology adoption. Being curious and willing to experiment with new opportunities, children can be exposed to the risk of harm. They often engage alongside adults in a digital environment that has little capacity to recognise their particular needs or rights, given the difficulty of knowing who is a child online. The affordances of digital networks (persistence, replicability, scalability, searchability) (boyd, 2014; Lupton & Williamson, 2017) compound potentially negative outcomes by contrast with the offline environment where the traces of actions are typically short-lived and contained within an immediate social network.

Second, children's specific needs are often neglected or misunderstood by those who plan, design and market digital services. Conversely, those charged with providing for children often lack understanding of the digital environment and, therefore, of the positive provision or mechanisms of redress available to them (Livingstone, Carr, & Byrne, 2015). As noted by UNICEF in its 2017 *State of the World's Children Report*:

The internet as we know it was developed and has been regulated primarily with adult users in mind – and the assumption that users are adults continues to inform legislators, regulators and internet governance organizations. (UNICEF, 2017, p. 123)

Third, most evidence about children's online experiences is limited to the Global North, predominantly in Europe and North America (Livingstone et al., 2015; Kleine, Hollow, & Poveda, 2014). Even there, it is contested in terms of measures and findings, and quickly dated given the pace of technological and social change. How far this evidence, and the policy and practice it may inform, is applicable to children's activities in the Global South, where rapid expansion in internet use is now occurring and where access is distinctively mediated by (often shared access to) the mobile or smartphone, is unclear (Livingstone, Carr, & Byrne, 2015), but there are many reasons to suppose that its applicability is limited, given huge North/South differences in multiple dimensions of children's lives (Banaji, Livingstone, Nandi, & Stoilova, 2018).

In this article, we therefore ask: How can researchers generate evidence that can impact policy and practice in ways beneficial for children around the world, given that their experiences online and offline vary depending on language, geography and culture, and are shaped by power dynamics at state, commercial, local community and family levels (Livingstone & Third, 2017; Stoilova, Livingstone, & Kardefelt-Winther, 2016)? We discuss a project – Global Kids Online – which seeks to answer such questions by generating a rigorous cross-national evidence base around children's use of the internet, with a particular focus on enhancing research findings and research capacity in the global South.

Our purpose is to identify the challenges that projects such as this one can face, and the solutions developed, in the hope that they can be useful to others concerned with evidence-based policy in a digital society. In what follows, we first discuss the conceptualisation and organisation of the project underpinning its coordinated yet distributed approach to cross-national research and impact. We then map the complexities in developing systematic, yet flexible, research impact tools and the lessons learned in the process, followed by examples of how these tools were applied in practice to develop policy both nationally and collaboratively across the countries participating in the Global Kids Online network.

Identifying the problem

In the past decade or so, researchers have moved beyond the narrowly liberal, at times libertarian discourse which dominated in the early days of the internet, prioritising freedom of expression above all else. Now we see increasing support for a ‘turn to rights in the digital age’ (Livingstone & Third, 2017), although a strongly protectionist approach still dominates policies across the globe specifically in relation to children. This rights focus promises to inform the undoubted struggle to achieve a balance between child protection and children’s positive rights to expression, participation and privacy (Bulger, Burton, O’Neill, & Staksrud, 2017), while avoiding moralising judgements about what children should do with their freedoms (Albury, 2017) and recognising that respecting ‘the best interests of the child’ (UN, 2013) provides a rationale to adapt policy and practice to the cultural context.

In addition to the burgeoning research in Europe and North America (Livingstone & Bulger, 2014; Kleine et al., 2014), promising work is now emerging in contexts beyond the Global North, including Latin America, South East Asia and Africa (reviewed in Banaji et al., 2018). However, much of it concentrates on middle-class urban children in the better-off countries of the Global South (Kleine et al., 2014). Much of it also uses qualitative methods, thus offering contextual and nuanced insights into the meanings and consequences of children’s engagement with digital technologies. However, such methods are less useful in generating baseline data at a time when these are most needed to track change over time and make cross-country comparisons (Livingstone & Bulger, 2014).

Influential international bodies such as the International Telecommunications Union (ITU), a specialised UN agency responsible for information and communication technologies, still collect little data about children, and nor does the UN’s Internet Governance Forum attend much to children as internet users. The task, therefore, falls to the research community and to child rights and welfare organisations who are increasing their efforts to generate and consider evidence cross-nationally. Relatedly, growing efforts are being made to share good practice and effective policy and practice solutions, although they are still insufficient in scale and sustainability, and too often solutions developed in one context are inappropriately applied in another. For example, it is not uncommon for policy and programmatic interventions in the global South to focus on access to digital technologies alone without recognising that this can, for instance, exacerbate gender inequalities if resources are provided to ‘the household’ in a context where girls’ but not boys’ needs are marginalised, or it can burden schools if digital policies enable access to hardware without accompanying resource provision for teacher training or curriculum reorganisation (Banaji et al., 2018).

A global phenomenon like the internet, reliant on the decisions of global companies, is difficult for national governments to regulate. Hence the problem that children’s rights in global internet governance institutions are rarely recognised, even though children constitute an estimated one

in three internet users (Stoilova et al., 2016). One step forward is the Council of Europe's (2018) *Recommendation to member states on guidelines to respect, protect and fulfil the rights of the child in the digital environment*, which now offers a comprehensive frame and a moral compass for its member states, drawing on European and North American evidence and tracking its impact. Another is the 2018 decision of the UN Committee on the Rights of the Child to produce a 'General comment' on the digital environment to guide States worldwide.

As internet access becomes increasingly taken for granted across the world and embedded in ever more dimensions of society, a rising clamour of concerns about children's wellbeing can be heard in the media, public and policy spheres. These concerns centre most commonly on children's safety but the full range of children's rights is at stake. A global phenomenon needs a global evidence base, without which policymakers can feel the urgent need to act quickly in ways that result in censorious, restrictive, moralistic or simply impractical policies. However, Nutley, Walter, & Davies (2007) observe that it is rarely clear in advance of policy development just what evidence will be useful, making sustained dialogue between researchers and policymakers vital.

The Global Kids Online project

The Global Kids Online project was developed as a collaborative initiative between the London School of Economics and Political Science (LSE), the UNICEF Office of Research-Innocenti, the EU Kids Online network and partners in a growing number of countries (12 at the time of writing: Argentina, Brazil, Bulgaria, Canada, Chile, Ghana, Montenegro, New Zealand, the Philippines, Serbia, South Africa and Uruguay). The project addresses two broad and linked research questions. First, when and how does use of the internet (and associated online, digital and networked technologies) contribute positively to children's lives, providing opportunities to benefit in diverse ways that contribute to their wellbeing? Second, when and how is use of the internet (and associated online, digital and networked technologies) problematic in children's lives, amplifying the risk of harms in ways that may undermine the positive outcomes? The project concerns children's wellbeing, inviting 'researchers and policy makers to consider all the possible ways in which children's internet use might impact on their wellbeing' (Livingstone, 2016) in a holistic rather than piecemeal or partial manner. In terms of theoretical emphasis, the project focusses on how children (and the adults and institutions around them) use the internet rather than on how it impacts on their lives – an effort to acknowledge that technology is not external to society but invented, built, governed and used as part of its complex social dynamics (Livingstone, Burton, et al., 2017). Global Kids Online's partnership approach combines the benefits of central coordination of resources, expertise and tools with a distributed and context-sensitive approach to evidence-gathering and impact. The network draws together international experts in child rights, child protection, internet and mobile technologies and governance, cross-national survey and ethnographic methods, applied and policy-relevant

research, and area specialists from the Global North and South. By sharing expertise and identifying joint priorities and advocacy activities, the network capitalises on the added value of centralised capacity-building and convening activities (Mugabo et al., 2015) as well as diverse and dispersed forms of knowledge. Underpinning the framing, design and conduct of Global Kids Online is its research toolkit (available at www.globalkidsonline.net/tools).

As the findings are produced country by country they are reported at www.globalkidsonline.net/results. They encompass a considerable scope, both because the internet mediates many of children's daily activities and because the potential consequences of this mediation for their wellbeing understood holistically are even broader. Our purpose here is not to discuss the empirical findings but rather to explain how, drawing on recent empirical research with over 15,000 children and 12,000 of their parents or caregivers in 12 countries, Global Kids Online seeks to ensure that the findings impact on policy (for more on methodology and overcoming the problems of researching children in diverse contexts, see Livingstone, Stoilova et al., 2018; Stoilova et al., 2016).

The Global Kids Online impact framework draws on the 'Theory of Change' (Vogel, 2012) and its practical applications in assessing research impact (Morton, 2015a). The Theory of Change is 'an outcomes-based approach which applies critical thinking to the design, implementation and evaluation of initiatives and programmes intended to support change in their contexts' (Vogel, 2012, p. 3). The theory is particularly useful for guiding strategic thinking and action in a way that includes the collaborative efforts of the whole Global Kids Online network. It also allows for planning joint efforts towards a complex process of change, such as realising children's rights in the digital age and improving their experiences online.

Informing the assessment of research impact is the Research Contribution Framework developed by Morton (2015a), which identifies a pathway to impact setting out a process of engagement, activity and change that creates impact as a result of research engagement and use. This model was adapted by adding a more comprehensive approach to impact and mapping a corresponding range of the activities, methods, and indicators related particularly to researching children's online experiences. In the next section we outline the process of creating impact tools for partners across the network.

Building research impact tools

Translating Morton's (2015a) model into practice, Global Kids Online developed knowledge exchange and impact tools so that evidence reaches and informs stakeholders as they formulate policy designed to remedy the problems identified in the previous section. The tools are open-access and available under a Creative Commons licence at www.globalkidsonline.net/tools/impact. They aim to guide researchers and research users as they

seek to deploy evidence in ways that can inform the development of national and international policy and legislation around digital technologies, with a focus on safeguarding children's wellbeing and rights (Byrne, Albright, & Kardefelt-Winther, 2016).

Research impact can be defined in many ways, ranging from broader to more specific definitions, but essentially it means finding ways to contribute to desired social changes by drawing on the findings and insights of the research, and working with stakeholders to apply them in relevant contexts. While impact can be conceived in purely bureaucratic terms, as meeting the audit demands of research funders or academic institutions, for instance, or primarily as a measurement problem in terms of citations, media mentions or other indicators (see Bornmann, 2017), the approach here is substantive (Alla, Hall, Whiteford, Head, & Meurk, 2017).

Global Kids Online identifies five areas of impact (see Box 1). This builds on the approach of UNICEF's Office of Research-Innocenti, where impact contribution is defined across four potential spheres: academic, conceptual, capacity-building and instrumental. To this we have added collective impact in recognition of the value, sometimes the necessity of working through collaborative partnerships and agendas if the work is to achieve impact in all countries in which children's wellbeing and rights are at stake in the digital age (see also Banzi, Moja, Pistotti, Facchini, & Liberati, 2011).

In combination, these impact areas set out the demonstrable benefit that research can contribute to society to help realise children's rights and positively impact on their wellbeing in relation to the digital environment, nationally and internationally. We recognise that the path from evidence to impact-related outcomes is unpredictable, often occurring long after the conduct of the original research, often difficult to measure in terms of cause and effect given the multiple and contextual factors that may apply, and often impeded by the political challenges inherent in policy formulation and implementation. Since long-term impact – in this case, improved child wellbeing – is difficult to capture within the lifespan of most research programmes, Global Kids Online focussed its efforts on capturing the 'intermediate outcomes' or 'pathways to impact' that signpost plausible longer-term societal impacts in terms of beneficial outcomes for children. To combine the multi-stakeholder efforts of the network and address different country priorities, a series of network meetings and workshops were held face-to-face using online collaboration software. The workshops used the Theory of Change (Vogel, 2012) to systematically plan an anticipated shared outcome from the project by defining the desired change at country and international level and analysing each country context and associated stakeholders. The national teams then individually and collectively worked to identify the sequence of steps and required actions leading to the desired change, and to plan the process of monitoring and adapting the pathway and outcomes.

Box 1: Global Kids Online dimensions of research impact

- 1. Academic impact:** contributing to the long-term scientific evidence base on children and the internet through publishing high-quality relevant research in peer-reviewed books, journals and other relevant fora.
- 2. Conceptual impact:** influencing and reframing discourse, debate and dialogue among key stakeholders (academics, policymakers, non-governmental organisations, media) to affect their knowledge, understanding and attitudes about child rights in the digital age.
- 3. Capacity-building impact:** building capacity at individual, organisational and systemic levels in the countries where we work to generate, communicate, analyse or utilise research on children and the internet for multiple purposes from teaching, academic publishing, advocacy or engaging in new practices and policy development processes.
- 4. Collective impact:** brokering new partnerships, networks or strategic alliances within and between countries to develop joint commitments and common agendas around child rights in the digital age to foster longer-term social change.
- 5. Instrumental impact:** being able to demonstrate a plausible contribution to changes in behaviour, policies, programmes and practice regarding child rights in the digital age within focal countries, at UNICEF and across the international community more broadly.


Source: <http://globalkidsonline.net/tools/impact/approach/>

In practical terms, the resulting impact tools support the processes of planning and monitoring as well as providing a series of concrete resources and models of good practice. A draft impact planning and monitoring framework was tested by seven of the country partners, and then adjusted based on their feedback and discussion (Livingstone, Kroeger, Stoilova, & Yu, 2017). Key issues raised by the country partners referred to the need to integrate and acknowledge the different policy priorities, levels of stakeholder engagement, and resources available. The resulting framework provides a way to assess the uptake and impact of Global Kids Online's work in the short to medium term. By identifying key steps in the pathway to impact and choosing amongst a range of activities, outputs, outcomes, and methods, the framework was designed to allow both a systematic and adaptable application as well as revision and adjustment throughout the research process according to country-defined research and impact priorities, thereby ensuring both flexibility and comparability between countries.

The planning tools invite researchers to consider the efforts needed in relation to necessary inputs, planned activities and outputs, anticipated awareness and reactions required engagement and participation, and desired impact, allowing planning for impact from the outset. Rather than waiting for research findings to become available before thinking about research uptake and impact, Global Kids Online recommends that impact thinking be integrated from the outset of the research. While impact itself cannot be planned, having a clear and coherent strategy for

stakeholder engagement and research uptake, including monitoring and evaluation, enhances the likelihood of impact. The impact planning framework – provided both as an in-principle guide (shown in Box 2) and as completed with illustrative examples from partner countries – is designed to be completed country by country. It can also be combined and compared across countries.

Box 2: Impact planning framework

	IMPACT PLANNING (to be completed at the outset and revised as needed)		
	Description (What?)	Methods (How?)	Indicators
INPUTS	<ul style="list-style-type: none"> Resources expended Number and type of staff involved Time spent 	<ul style="list-style-type: none"> Budget analysis Align activities to resources 	<ul style="list-style-type: none"> Financial and human resources used in the project
ACTIVITIES AND OUTPUTS	<ul style="list-style-type: none"> Research and knowledge exchange activities (e.g. organisation and attendance of events, training, press releases, networking with stakeholders) 	<ul style="list-style-type: none"> Quality assurance Project reports/journal articles Peer or funders' review Internal reviews and procedures Media mentions 	<ul style="list-style-type: none"> Quality assurance in place Number of activities, outputs, events Stakeholder/policy context mapping
AWARENESS, REACTION	<ul style="list-style-type: none"> Seeking stakeholder reaction and feedback Possible relevance to current affairs Spill-overs outside the project 	<ul style="list-style-type: none"> Identify key stakeholders Plan a communications strategy Evaluate user awareness activities Surveys Track participants over time 	<ul style="list-style-type: none"> Reaction to research and knowledge exchange from stakeholders Comments about the research Analysis of context for research use at policy and practice levels
ENGAGEMENT, PARTICIPATION	<ul style="list-style-type: none"> Seeking engagement with the research process and findings – by whom and how (e.g. government, civil society, social justice and public policy members, rights and welfare representatives; society and community, media; economy, commercial sector, organisations and practitioners) What kind of engagement? 	<ul style="list-style-type: none"> Identify key stakeholders Organise meetings and sustain dialogue Meeting attendance records Seminar/conference/ training evaluations Observation and reflection of interactions with research users Analysis of gaps in participation 	<ul style="list-style-type: none"> Level of engagement of research users from relevant sectors (e.g. number of collaborative partners, institutions engaged, collaborative projects, number of events/ attendees, of media coverage, download figures, trainees) Web-use tracking
IMPACT <i>academic, conceptual, capacity-building, collective, instrumental</i>	<ul style="list-style-type: none"> Contribution to the long-term scientific evidence base (e.g. high-quality peer-reviewed books, journals) New/changed policy or curricula based on research outputs Behavioural changes of children/parents/educators/child practitioners Changes in individual or institutional knowledge about child internet use Changed media discourse Built new capacity, knowledge or skills New partnerships, networks or strategic alliances 	<ul style="list-style-type: none"> Content analysis of policy Tracking activities Backward tracking techniques Internet-based searches on citation in policy Review of understanding and knowledge of target groups Tracking further use of research Research follow-up 	<ul style="list-style-type: none"> Levels of stakeholder understanding of key concepts or theories Levels of self-expressed commitment to specific areas and actions Levels of new knowledge about issues addressed in the research Examples of policy and curricula changes based on research outputs Research outputs cited in policy/practice documents

Source: <http://globalkidsonline.net/tools/impact/framework/>

To monitor progress, the impact planning tool needs to be periodically reviewed and revised. Additionally, impact outcomes can be mapped on to the five areas of impact in Box 1. Thus, the linked monitoring tool (not shown here) helps in tracking and recording the actual impact achieved, whether intended or unintended, inviting the research team to identify the types of impact that have occurred, to demonstrate how they have been verified and to reflect on lessons learned.

Box 3 shows all the main components of the impact tools. Many researchers lack experience of these processes. Nor can they easily anticipate the pitfalls with which more experienced researchers become (painfully) familiar. For example, the more experienced teams were able to involve government agencies and civil society stakeholders strategically from the outset of their projects, which was beneficial for identifying issues of particular concern to local stakeholders, for framing their research agenda, and for designing their dissemination strategies, enabling them to address and build on the existing priorities.

Box 3: Elements of the Global Kids Online impact tools

1. Getting started with the Global Kids Online impact tools: A user-friendly guide, including context, aims and approach, and links to relevant resources.
2. What is research impact? Explanatory guidance provided in the toolkit (including Box 1).
3. Key steps in planning impact: Explanatory guidance provided in the toolkit.
4. Planning and monitoring framework: A blank impact planning and monitoring framework with indicators suggested (see Box 2), plus a model framework including examples from country partners as a guide and stimulus to others.
5. Engaging with stakeholders:
 - *Using evidence*: Guidance text, a step-by-step guide to writing a successful policy brief, and a good practice example of an evidence-based policy brief.
 - *Examples of good practice*: Case studies from Argentina, Brazil, Bulgaria, Montenegro, the Philippines, South Africa (for illustrative selections, see Box 4).
 - *Presenting findings to children*: A worksheet for children (completed version, blank version for country completion), and an animation film (completed and blank versions) for children.
 - *Communication tools*: Research toolkit launch package (media plan, press release, social media materials, blogs, flyer, videos), and guide to Google analytics.

The impact tools are available at <http://globalkidsonline.net/tools/impact/>

From evidence to policy in a digital society

Of the various models of evidence-based policy, Nutley et al. (2007) advocate an interaction between researchers and policymakers within which problems can be framed, examined, researched and deliberated on, perhaps even approaching an ‘enlightenment’ ideal in which evidence and policy are co-developed and interpreted within a constructive and sustained process of engagement and mutual learning between researchers and policymakers. Questions of power, values, standpoint, trust and autonomy all shape whether such an ideal can be achieved

(discussed and critiqued by Belfiore, 2016; Cherney, Head, Povey, Ferguson, & Boreham, 2015; Darby, 2017; MacDonald, 2017). In the Global Kids Online project, the relation between researchers and policymakers varied considerably across countries. To accommodate this variation, the project recognised that country teams must negotiate impact according to their own understanding of the socio-political context and evidence needs in the countries in which they work, and within which their research results will be used. Therefore, they formulated their own ideas about the sorts of impacts they could hope to achieve, in what time frames and with what partners, with guidance from the core coordinating team.

In this section, we refer to the country case studies of pathways to impact, with many already included in the toolkit and more continuing to emerge as the cross-national comparative evidence base grows (see Box 4). The selected good practice country examples demonstrate the knowledge exchange and impact efforts that the Global Kids Online partners have undertaken locally when working with key stakeholders. Each is designed to illustrate one or more issues that may arise in seeking to ensure that research findings contribute to wider benefits for specific societies. Reflecting distinct local and cultural concerns and priorities, these cover the demonstrated need for greater efforts to promote digital and media literacy through educational legislation (Argentina); to reduce inequalities in children's access to the internet (Brazil); developing teacher training and curriculum (Bulgaria); to stimulate public debate on digital safety (Montenegro); to build multi-stakeholder collaborations to raise awareness of child online protection issues (The Philippines); and to prevent cyberbullying by influencing policy and creating a targeted parenting intervention (South Africa).

On the basis of findings from the first four countries, it was concluded that the Global Kids Online approach:

...was successful in that it enabled individual country teams to draw on and adapt the Global Kids Online toolkit to develop their own national research toolkit, ready to be used in the local context. By involving government agencies and civil society stakeholders from start to finish, the national research teams were able to contribute to relevant agendas by asking questions that matter to stakeholders in their own country. At the same time, national research teams benefited from the centralized coordination and sharing of knowledge, resources and data within the Global Kids Online network. (Byrne, Kardefelt-Winther et al., 2016, p. 66)

Box 4: Examples of Global Kids Online impact by country

Argentina: Drawing on their findings about children’s digital skills, UNICEF Argentina provided input into the new Convergent Communications Law that will promote digital and media literacy. A week of educational activities on ‘citizenship and digital coexistence’ was also introduced in October 2016 in the province of Buenos Aires.

Brazil: The research team at Cetic.br provided findings especially on inequalities in children’s access to the internet to the formulation of the government’s National Broadband Plan and National Digital Strategy, and to the parliamentary debate underpinning the formulation of ICT laws.

Bulgaria: The Bulgarian Safer Internet Centre (SafeNet) used findings to develop a programme for teacher training and curriculum development. They also run an annual two-day training programme for children on internet safety, among other activities informed by the research.

Montenegro: UNICEF Montenegro held a public debate on the findings, resulting in many mass and social media reports and fuelling a public debate on digital safety and literacy. They also developed a game, since played by thousands of children, to encourage constructive responses to online violence.

The Philippines: De La Salle University and UNICEF collaborated on the research, and the findings are being used to raise awareness of child online protection issues among diverse stakeholders and, working also with UNESCO, to broaden the agenda beyond protection to include other child rights online.

South Africa: The Centre for Justice and Crime Prevention collected and used the research findings to inform the Department of Telecommunications and Postal Services’ research strategy and priorities planning. They also provided material on cyberbullying for the National Cybersecurity Hub and created a targeted parenting intervention.

Read more at <http://globalkidsonline.net/tools/impact/stakeholders/>

Using the comparative findings, the country partners were able to identify areas of particular concern in the local context, thereby presenting a more compelling case to the national stakeholders. For example, Argentina identified online hurtful behaviour as a significant barrier to children’s rights and sought government support for implementing better digital citizenship education. While government policies in Argentina focus on the provision of universal access to broadband internet, the team sought to direct local policies towards a more comprehensive approach including children’s rights, online opportunities, digital skills, and online protection.

Brazil and South Africa used existing digital inequalities to formulate demands for digital inclusion programmes. The Brazilian team used the momentum gathered locally around the discussions of the national broadband plan and digital strategy to draw attention to the existing barriers to children's digital inclusion. The team in South Africa focussed their efforts on broadening the existing public and government discourse from concentrating mainly on the danger from online harm to addressing more sufficiently children's online rights including access to opportunities, safety, freedom of expression, and privacy. In Montenegro the findings served to open a public debate on digital safety and literacy, drawing the government's attention to and support for digital literacy education. The Philippines worked on mobilising multi-stakeholder cooperation for combatting online child sexual exploitation and abuse. Child sexual abuse materials were made illegal in the Philippines in 2009 but the legal protection and prosecution framework remains insufficient prompting the team to focus their efforts on this area.

There are many reasons why caution is necessary in interpreting research impact, reflecting the limitations on the kinds of impact that can be achieved. For example, a decade after EU Kids Online (the founder member and forerunner network of Global Kids Online) produced evidence to guide the European Commission in developing its strategy for a 'Better Internet for Kids', assessments of progress in terms of impacts on policy and practice still suggest only partial success at best, for a range of reasons – financial, political, cultural – that are beyond the capacity of researchers to resolve (O'Neill & Dinh, 2018). Also undermining the potential for impact is the (expensive) demand for frequently updated yet also methodologically robust and cross-nationally comparable evidence. The sheer breath of dimensions of children's lives affected by the digital environment and, therefore, the wide range of stakeholders whose involvement is required for effective policy development, is also challenging. These and other factors discussed in this article can easily risk undermining the effective contribution of evidence to policy and practice.

It is thus unsurprising that, in the case of Global Kids Online, the case study examples in Box 4 suggest only partial impact, although it is too early to make a firm assessment at the time of writing. Many project findings had not resulted in any policy change, although greater impact was, arguably, expected. Some of the findings that successfully found their mark did so in large part because the policy climate was already receptive; in other domains, researchers needed to devote considerable efforts to broker evidence-based policy and practice notwithstanding the uncertain outcome.

Impact can also be leveraged at the cross-national or even global level. Identifying international stakeholders is, in a sense, easier than at national level since they tend to be both fewer and more prominent. Reaching and influencing them, however, is far harder at international than national level, although Global Kids Online has engaged productively with UNICEF, UNESCO, the ITU and other international bodies. UNICEF's 2017 State of the World's Children report referred

extensively to ‘analysis drawn from the pioneering Global Kids Online Survey’ (2017, p. 10) in advancing UNICEF’s ambitious priorities for states and other stakeholders.

Conclusions

Research impacts are incremental, non-linear and often unpredictable (Morton, 2015b). They are also a product of multiple joint efforts (Banks, Herrington, & Carter, 2017). Recognising these factors, the approach of the Global Kids Online project to judging impact has been to seek evidence of its contribution to beneficial outcomes rather than expecting a direct or simple attribution of outcomes to the research findings alone (Byrne, Albright et al., 2016). This approach acknowledges the importance of partnerships and networks in enhancing research impact; it also recognises that any beneficial outcomes are likely to be the result of multiple factors operating over various timescales, and that any particular research project or set of findings is but one of many when properly located within the wider research literature. This article has examined the impact process as well as specific outputs, such as expenditure or policies or practical actions, recognising that the process can be beneficial in its own right, for example by building research capacity; generating mutual understanding and trust among stakeholders; empowering civil society actors; contributing expertise to policy deliberations; representing the views of those often excluded from the research, in this case, children; and because outcomes can extend long into the future.

The efforts of the Global Kids Online partners focussed on finding ways to contribute to desired social changes by drawing on the findings and insights of the research and working with relevant stakeholders to apply them across a range of desirable outcomes. The impact tools that were developed to guide and monitor this process can help other researchers and research users working in the field of safeguarding children’s wellbeing and rights in the digital society to deploy evidence in ways that can inform the development of national and international policy and legislation. The process of developing knowledge exchange and impact tools demonstrated firstly the importance of adopting a context-sensitive approach to evidence-gathering and impact that allows sensitivity to issues particularly relevant to the local setting and flexibility to be addressed effectively in the light of local affordances. Toolkit flexibility allowed the evidence to reach and inform stakeholders as they formulate policy designed to remedy their specific problems. Secondly, the process highlighted the significance of sharing expertise and identifying joint priorities and advocacy activities across the network, allowing planning joint efforts towards a complex process of change, such as realising children’s rights in the digital age and improving their experiences online. Drawing on the comparative element, the country partners were also able to identify areas of particular concern to the local setting, presenting a more compelling case to the national stakeholders, and using the lessons learned in other contexts to suggest suitable remedies. Thirdly, the Global Kids Online experience confirmed the significance of early integration of impact and uptake planning. Rather than waiting for research

findings to become available, some of the most successful policy and practice advocacy examples involved integrating impact planning from the outset of the research, as well as developing stakeholder collaborations early on. Country partners were able to address and build on the existing priorities and draw on strong alliances to plan redress strategies. Finally, the process also identified some of the limitations of impact efforts and effectiveness. Children's lives are affected by the digital environment in multiple and complex ways requiring active involvement from a wide range of stakeholders effectively to change policy and practice: a challenge which is often beyond the capacities of a single research team or the lifetime of a project.

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