

# Are children more than 'clickbait' in the 21st century?

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This article considers the rights and privileges of childhood, and about how we might start to redress the imbalance of power between tech and children in the digital environment. It begins with the concept of childhood.

Childhood is the word we use to describe the journey from dependence to autonomy, from infancy to maturity. Whilst different individual children – and different personal, social and economic circumstances – impact hugely on that journey, we have, over time, established an understanding of this transition in terms of childhood norms and childhood needs, that academics call 'childhood development milestones'.

A development milestone is an age, or more commonly, an age range, by which certain maturities and understandings are likely to be achieved – and conversely, an age or age range when certain maturities and understandings are 'unlikely' or 'not supposed to be' in place.

So, whilst a child at 3-5 years is beginning to understand that others feel and experience life differently to them, they are not yet able critically to evaluate that information and will take what they are told at face value. It is not until between their 13th and 15th birthday that a child will develop a heightened sensitivity to risk; at that age some will embrace risk and others will shrink from it, but until then they are unlikely to anticipate or see it. Our understanding of the physical, neurological and emotional changes

that take place during childhood has shaped society's response.

Although we take the view that parents and those with parental responsibility for children offer the first line of both care for and defence of children, we have also concluded that children by virtue of their age, and the vulnerabilities associated with that age, require a broader set of inputs, privileges and protections beyond that offered by their immediate families. These inputs include a complex but widely understood – and respected – set of social norms, educational frameworks, advisory bodies, regulatory interventions, and national and international laws.

Perhaps the most recognised expression of our common understanding of the rights and privileges of childhood is the UN Charter on the Rights of the Child (UNCRC). It is the most ratified treaty in the world, with 196 signatories. A glaring exception is the country host to the major tech companies, but nonetheless the UNCRC serves as a codified description of what we collectively believe is necessary to ensure a safe and secure environment for childhood.

In addition to the UNCRC, we design and mitigate for childhood in multiple ways across all aspects of our society. We educate, we consider paediatric medicine to be a distinct specialism and require doctors to obtain additional skills and expertise; we don't criminalise young children, and impose a public interest test on the Crown Prosecution Service when

considering prosecuting older children; we don't allow adults to hold children to contractual obligations; we put pedestrian crossings near schools; we rate films according to the developmental stages of childhood; children have special protections around sexual activity; and we make it illegal for children to smoke, drink and gamble and even take steps to protect them in environments where adults smoke, drink and gamble.

In short, the overriding understanding is that society must, above any other consideration, act in the 'best interests' of a child. This reflects a global consensus that the capacity of a child to understand and act is necessarily limited by vulnerabilities and immaturities associated with their age.

## The digital environment

Yet the digital environment does not reflect this consensus. Several years ago, I interviewed a number of people credited with inventing the World Wide Web for a film project. Repeatedly they described the original vision as a democratising technology where gatekeepers would be banished and all users would be treated equally.

In the middle of an interview with Nick Negroponte, founder of the MIT Media Lab, I had one of those 'moments' that change how you see things. I realised there was a category error, because however good it first sounds, if you treat everyone equally then *de facto* you treat a child as if they are an adult. And a child is a child until they reach maturity – not until they reach for their smartphone.

Perhaps even more important than the category error that I identified was that other promise – to get rid of the gatekeepers. The founders' utopian vision – a network of open-source small holders with a chain of active participant users – had been rapidly replaced by a handful of powerful platforms that quickly made the digital environment more powerful, less responsive, more autocratic and less accountable than the gatekeepers they had promised to replace. By the same token a handful of young, privileged men (mainly young, mainly privileged, and mainly men) had been made insanely rich and insanely powerful on a global scale, with no balancing oversight or societal responsibilities. This is something that governments, international institutions, and several increasingly unhappy 'inventors and founders' are only now beginning to understand.

It is in the DNA of Silicon Valley, as famously

articulated by Mark Zuckerberg, to 'move fast and break things' – but in this breathless journey to innovate, communicate, and of course make money, the young, privileged men I refer to have not properly considered that some of the things they might break are our children. In creating an environment that does not consider the needs of child users they have rejected hugely precious, cultural, social and legal norms of childhood.

Perhaps at first unconsciously, but for the last 10 years at least wittingly, there has been a denigration of the hard-won privileges and protections that a century and a half of careful consideration, research and law-making across the globe has afforded our children. In doing so the status of children, and childhood, has been changed in the plain sight of parents, media, civil society and governments.

I would like to kill the myth of children as 'digital natives' – a term which implies that they have grown up in some exotic land which they alone understand and embrace in a manner that we adults never will. If we accept that analysis we become foot soldiers for Silicon Valley's army of lobbyists who would have us believe that the 'kids are ahead of the game'. They most definitely are not.

As the longitudinal study, EU Kids Online, consistently shows, children remain on the lowest ladder of digital opportunity because they spend the most time on a few highly commercial sites and have the least critical understanding and facility to understand, organise or use the information they are presented with online. As an eminent child psychologist wrote: 'Using technology with two fast thumbs cannot, in itself, be taken as evidence that a child is a creative participant in the digital environment with full literacy, citizenship and agency.' In plain language this means that just because you can access technology, it doesn't mean that you understand or control it!

I would particularly like to draw attention to the concept of 'agency' to which the psychologist refers. A child that has 'agency' has the ability to make choices based on information that has been provided in a way they can understand, and in conditions in which that choice is meaningful.

With that in mind I would like to repeat a conversation I had recently with the Managing Director of IT at BT, Rachel Higham. She described the 'bundle' of technological methods currently used to capture and hold our attention on the tubing, gaming and social media platforms where children spend so much of their time. This bundle is referred to as *captology*. It

is its own science; the science of capturing a person's attention and keeping them in 'rapture', which can include:

- soft rhythmic sounds or music to block out real life;
- sharp, narrative sounds to pull user attention to what is happening on screen;
- bright, intense light that vibrates intermittently at high speed;
- cycles of intense activity followed by a slow end – like changing an avatar, or responding to a message, or being congratulated – only to be interrupted by something fast and even more intense to drag the user back just as they are ready to quit (this, Rachel explained, is because if you think you are getting off, but come back at the last minute, you will stay longer than if you are attached for a single exhausting session at the same pace);
- vibrating devices;
- confirmation signals from peers – the heart/like/share buttons;
- random confirmations – from algorithms that feel your waning activity;
- personal streaks – not breaking a 'run' irrespective of any intrinsic value in the exchange;
- community streaks – not breaking a 'run' with someone else so that you are not guilty or embarrassed, irrespective of your desire to be in contact with that person;
- attracting your attention with a key word or image that you have just used in another setting;
- attracting your attention with an extreme word or powerful image;
- attracting your attention by showing you that others in your circle are online, getting more attention, posting more, etc;
- the colour blue.

And this list, though exhausting, is not exhaustive!

## Children's developmental capacity

A child, not yet fully-formed, does not have the developmental capacity to resist one or another or a combination of these pulls. The algorithms follow their behaviour on such tight loops that they can, in real time, provide the 'exact' personalised mix to keep them clicking. So, if one child is more responsive to image and confirmation from peers but another responds to sharp sounds and being set challenges, each will get the loop of events that will most entice them to their own 'personalised' state of rapture.

These techniques are digital norms that I'm sure we all recognise from our own experience, but they are especially potent when deployed against children whose brains are still being moulded, and whose critical thinking has yet to mature. Most importantly, they *deliberately* orchestrate a context in which a child cannot make a meaningful choice whether or not to engage with their digital environment – ie to exercise their right to agency. They are in the digital sweetshop, which most certainly has its pleasures and positive outcomes, but it does not provide a balanced diet. Being stuck there in a state of 'rapture' is not in the 'best interests' of the child.

Research carried out by Common Sense Media in 2016 found that 70 per cent of teenagers in the US argued with their parents about their devices, with 32 per cent saying devices caused arguments on a daily basis.<sup>1</sup> Research conducted across different childhood age groups and multiple locations reflected a similar pattern, and in 2017 tech-related conflict was widely reported as the top cause of familial discord in the UK.

I have spent my whole life working in media, and have set up organisations that encourage young people to watch films online. I regularly co-create technology with children, and I am a strong advocate for the rights of children to access the digital environment. But I see an increasing tension between a technology that has a singular power to redress some of the world's greatest challenges and inequities, and a corporate culture that aggressively rejects its societal responsibilities to the communities in which it operates and to the people which it so successfully commoditises.

I am not alone. Jaron Lanier, inventor of virtual reality; Sean Parker, the co-founder of Facebook; Sir Tim Berners-Lee, inventor of the web; and Justin Rosenstein, the designer of Facebook's 'Like' button,

have in various recent public pronouncements decried the problematic use of technology against its users. Jaron Lanier accused tech of having gone over a threshold into behaviourist scientific experiments in which behaviour is provoked by stimuli that can guarantee changed human behaviours, and that the wellbeing of the nation (by which he meant America) depends on stopping it. He called for a new culture, in which users have 'dignity and autonomy'.

I believe that not just the wellbeing of America is at stake, but the wellbeing of children the world over. Whether a child loves cartoons, football, fashion, music or comedy, or whether they are a gamer, a tuber or a social media junkie or simply interested in the news, online services will deploy the full power of their data-churning algorithms to ensure that a child is perpetually bombarded with a bespoke recipe of emotional and technological pulls. Designed by engineers, delivered by robots, in an environment where neither the engineers nor the robots have any responsibility for the consequences, these 'bespoke', or should I say 'personalised', recipes are designed to keep a child clicking for as long as possible.

The consequences of this were highlighted recently when it was revealed that machine-learning algorithms that generate content for YouTube Kids, which are based on popular trends and key word searches, resulted in thousands of deeply creepy, sometimes violent, videos being watched by hundreds of thousands of very young children. These videos do not reflect the social norms of childhood, yet no one stepped in to temper the consequences of algorithms deciding what our children watch. When YouTube finally responded, they announced they would restrict these videos once reported. This is a solution that relies on pre-schoolers policing content. Where children are the end user, surely we need better oversight than that?

Children year on year spend more and more time online – for a 12-15 year old in the UK it was 20 plus hours a week in 2016. But I share the opinion of Professor Sonia Livingstone that it is inadequate to look at how long children are online. What we should be looking at is *what they are doing online and what being online is doing to them*. Being online is not in and of itself, bad, risky, unhealthy or negative in any other way.

However, commercial environments that are largely designed for adults, and demand significant levels of interaction and normalise the spread of personal information, are not great environments for children to spend the bulk of their time. These young people are entering contracts and giving away vast swathes

of personal information, using services that do not take account of their age. They are emerging from the experience sleepless, anxious, and overexposed. It cannot be a good use of technology to allow its brightest and finest to ignore the needs of most vulnerable demographic in our society, and it is a failure for any government, international institution or legislative body not to do what it can to tackle these norms.

I stress that the answer is not to kick children out of the digital environment – on the contrary, every child should be allowed to access the digital environment creatively, knowledgeably and fearlessly. But the digital environment is a network of businesses that provides services to children, and those businesses need to be responsive to their presence. It was that simple principle that led me to found 5Rights to, in effect, deliver the rights of the UN Charter in online settings.

## The rights and needs of minors

Over the last several years 5Rights has made many interventions and worked with many organisations, nationally and internationally. Our mission is to take every opportunity on all

platforms supporting research, policy and the building of tech in order to make the case that although 21st century children always need access to the digital world, they need it on new and improved terms. Those terms must include their right to change their digital footprint and identity; to be safe and supported in online settings; to understand who, how and what their data is being used for; to be informed and creative participant digital citizens; and above all, to have 'agency' – meaningful choice in an environment that is responsive to, and respectful of, their full complement of rights and needs as minors.

I hope I have made my case that we have a problem. So, what is to be done about it? Self-regulation is a whole topic in itself, so here is my brief ABC:

A. *Silicon Valley is not very interested in children.*

The real interest is in drones and driverless cars, conquering space and cryogenics, and operational leverage – specifically how robots can replace humans to provide a high gross margin, and naturally share price. The one third of all users that are children are an inconvenient truth for big tech, beautifully illustrated by the fact that they consistently refuse to collect and publish data on children's complaints or monitor under-age use of their services.

B. *There is both an explicit and implicit message from industry that we have to make children 'resilient' and inform them of risk.* Some businesses are doing excellent work in both these areas, but there is a great deal less appetite to design their services to make them fit for children. I see no world order in which the duty should rest on a child to adapt to the needs of tech, rather than on tech to adapt to the needs of childhood.

C. *Whenever we talk codes or conditions there is a unified response – that any form of conditionality would mean tech have to turn its back on young people, thereby throwing them off their platforms and services.* The response is based on the premise that the natural choice is between children using adult services or nothing. This is, at best, diversionary; nearly a billion current users are children, so should they be cast out then undoubtedly someone else will see the competitive advantage in developing services for them. But more insidious is Silicon Valley's corporate attitude to young people. It does seem that self-regulation is little more than leaving the fox in charge of the henhouse.

And just to be an unreliable commentator, my ABC has a D. This is no longer a new environment. At 27 years old, it is, unlike many of its users, fully adult and grown. Much like all the information technologies, all the industrial sectors, and all the global companies before them, tech is ready to take on and live up to its adult responsibilities. If you earn and own more than most nation states, your responsibilities – and allocating the resources to meet them – are self-evident. Equally self-evident is that year on year kids are having a harder and harder time online.

It really is time to bring this brave new world of tech into the real world of the 21st century, where every other business corporation, state and civil society actor – and indeed every human on the planet – lives, or fails to live, by a set of agreed standards upheld by regulation. What is needed is a global agreement that has at its heart some key provisions about the rights of users. Like others who take a close interest in this subject, I see a future where we will all be individual data providers, and commercial companies and other organisations will access us on terms and conditions that we set to reflect our limits, our tolerances and our interests. But returning to the present, it is important to dispel the double-myth inherent in the digital environment that it cannot reflect jurisdictions, and that it cannot be regulated. We have seen a number of push backs on several fronts and in many sectors.

## Taking regulatory action

In Germany, a new law was introduced in 2017 that places an obligation on online services to remove obviously illegal hate speech within 24 hours, or face fines of up to €50 million. Cities all over the world have responded to digital services, such as AirBnB and Uber, in a way that reflects local concerns and existing regulatory frameworks. The extensive provisions for Member State derogations in the GDPR anticipates not just the feasibility of, but the need for, bespoke, national solutions. The GDPR, imperfect as it is, provides proof that principles-based regulation, instigated in this case by the EU, can act as a global catalyst as companies roll the standards out worldwide.

The IT lead of one of the biggest pharmaceutical companies in the world recently said to me, and I paraphrase: 'Whilst the rules of the GDPR are perhaps a little opaque its intention is clear. So, we are working to the intention – because that is the right thing to do'. I, with the support of colleagues right across the political divide, tabled a set of amendments to the Data Protection Bill that established an 'age-appropriate design code' as a requirement for processing the data of children under 18.

The amendments, set out in detail in *Hansard*<sup>2</sup>, represent a step towards a better digital future for children by:

- crucially, connecting design of services with the development needs of children – recognising that childhood is a graduated journey from dependence to autonomy;
- introducing a code that will set out the standards by which online services protect children's data;
- setting standards that are directly related to a child's age and the vulnerabilities associated with that age;
- clarifying the expectation on services to design data practices that put the 'best interests' of the child above any other consideration, including their own commercial interests;
- establishing the standards by which the Information Commissioner will judge services on behalf of child users.

Subsequent amendments deal with creating guidance on age-appropriate design and Parliamentary oversight. One small set of amendments to a data Bill in one country, on one specific part of a child's digital

life, is not a complete solution – but these amendments achieve a few key things in that they:

- separate a child's data from that of an adult;
- build on the industry norms of personalisation, and take existing technology and set it to work for the child user (as one boy said to me, 'how come if they know I like red Nikes they don't know I am 12?');
- meet the United Kingdom's current obligation to ensure that our national legislation is compatible with the GDPR, and safeguard our prospects of securing an adequacy agreement post-Brexit.
- enshrine the long-held view that the first duty of any government is to protect its citizens – and most importantly, those who are too vulnerable to protect themselves – and fulfil our duty of care to children.

Detailed guidelines are necessary in the future, but what the amendment I put forward asks the Information Commissioner to take into account are such matters as a child's need for high privacy settings by default; not revealing their GPS location; using their data only to enable them to use a service as they wish and no more; and not automatically excluding children if they will not give up vast swathes of data – however nicely they are asked.

If the Commissioner so wished, guidelines could also extend to giving a child time off by not sending endless notifications during school hours or sleep hours, and deactivating features designed to promote extended use; making commercially driven content, whether a vlogger or a direct marketing campaign,

visible to and understood by a minor; and insisting on reporting processes with an end-point and a reasonable expectation of resolution.

None of the regulatory measures referred to above are beyond technology. They are not overbearing, do not hold back innovation, and do not discriminate between one set of data processors and another. They will, like the GDPR or accessible design, simply become industry standards – a price of doing business.

No system will ever protect all children at all times from risks and transgressions – accidental or intentional. But to start by acknowledging their special status as children in an environment – that is the environment in which their childhood plays out – can only be a good thing. In an industry dominated by data, children's data needs its own special consideration.

The world has just short of a billion children online. They have a right to be more than clickbait toiling in the fields of Silicon Valley. It is up to all of us to advocate for this right and to fulfil the founders' vision of a better digital world.

### Baroness Beeban Kidron

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### Notes

1 [https://www.commonsemmedia.org/sites/default/files/uploads/research/2016\\_csm\\_technology\\_addiction\\_executive\\_summary.pdf](https://www.commonsemmedia.org/sites/default/files/uploads/research/2016_csm_technology_addiction_executive_summary.pdf)

2 Hansard, (HC) Vol 787, col 1427 (11 December 2017).