

**Written evidence submitted by Prof. Derek McAuley, Dr. Ansgar Koene, Dr. Elvira Perez Vallejos, Dr. Virginia Portillo, Dr. Helen Creswick, Dr. Liz Dowthwaite and Monica Cano Gomez of the Horizon Digital Economy Research Institute, University of Nottingham.**

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1. Horizon<sup>1</sup> is a Research Institute at The University of Nottingham and a Research Hub within the RCUK Digital Economy programme<sup>2</sup>. Horizon brings together researchers from a broad range of disciplines to investigate the opportunities and challenges arising from the increased use of digital technology in our everyday lives. Prof. McAuley is Director of Horizon and was principal investigator on the ESRC funded CaSMA<sup>3</sup> project (Citizen-centric approaches to Social Media analysis) to promote ways for individuals to control their data and online privacy and the EPSRC funded UnBias<sup>4</sup> (Emancipating Users Against Algorithmic Biases for a Trusted Digital Economy) project for raising user awareness and agency when using algorithmic services. Dr Perez and Dr Koene led the research of the CaSMA and UnBias projects. Dr Portillo, Dr Creswick, Dr Dowthwaite and Ms Cano performed research for the UnBias project. An important part of this work included the facilitation of ‘youth juries’ – workshops (similar to focus groups) with 13-17 year old youths designed to identify experiences, concerns and recommendations about online services. The protocol to run youth juries is available as an Open Educational Resource<sup>5</sup>.

*Executive Summary*

2. In accordance with the desire by this inquiry to hear the perspectives and experiences of children, schools and youth organisations, we have structured our evidence around representative quotes from the participants in our youth juries. Juries were audio recorded, with the permission of participants, transcribed by an external company, and thematically analysed by us. The selected quotes were chosen based on the topics related to this inquiry.
3. The outcomes of the CaSMA youth juries are summarised in the report “The Internet on Our Own Terms: How children and young people deliberated about their digital rights”<sup>6</sup>. A preliminary analysis of an initial set of UnBias youth juries was published as contribution to the 2017 WebScience conference<sup>7</sup>. The participant groups and methodology were as follows:
  - *Participants* in the CaSMA youth juries were recruited through contacting secondary schools, colleges and academies in Nottingham and London and youth centres in Leeds. Recruitment for the UnBias youth juries was done through Nottingham University links and partners. A total of 108, and 144, participants took part in the CaSMA, and UnBias, juries respectively.
  - *Methodologically*, youth juries participants were asked to consider, debate, and share ideas about the future of the Internet while providing useful facts and a safe space to discuss, reflect and deliberate about their Internet-related concerns. The youth juries use scenarios as prompts to encourage discussions. The key scenarios relevant for this inquiry are linked to two of the five digital rights for children<sup>8</sup>:

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<sup>1</sup> <http://www.horizon.ac.uk>

<sup>2</sup> <https://epsrc.ukri.org/research/ourportfolio/themes/digitaleconomy/>

<sup>3</sup> <http://casma.wp.horizon.ac.uk>

<sup>4</sup> <http://unbias.wp.horizon.ac.uk>

<sup>5</sup> <https://casma.wp.horizon.ac.uk/casma-projects/5rights-youth-juries/oe/>

<sup>6</sup> <https://casma.wp.horizon.ac.uk/casma-projects/5rights-youth-juries/the-internet-on-our-own-terms/>

<sup>7</sup> <https://dl.acm.org/citation.cfm?doid=3091478.3091512>

<sup>8</sup> <https://5rightsframework.com/the-5-rights/>

- 'The Right to Make Informed & Conscious Decisions: The Right to Agency'<sup>9</sup>
- 'The Right to Safety and Support'<sup>10</sup>

#### 4. *Main findings:*

Youth Jury participants expressed a range of concerns regarding the effects that social media usage has on their lives. A key recurring issue was 'addictiveness' of apps/services resulting in sleep deprivation, annoyance about unhealthy dependence and disconnection from the real world. Another recurring theme related to false expectations raised by social media interactions with impact on self-esteem, depression and identity issues. Intrusive advertising was identified as a primary annoyance. On the topic of personal data, participants were primarily concerned about location data, and third-party data usage.

A number of benefits of social media usage were also reported, including benefits to learning, relaxing for short breaks and socialising/catching up with friends.

On the topic of solutions, the youth juries participants focused on means for limiting the time spend on social media, either through connection-time limits or limits to number of posts. Additional recommendations included education in school on issues of social media addictiveness, and *Childline* style helplines.

#### **Questions**

**1. What evidence there is on the effects of social media and screen-use on young people's physical and mental well-being — for better and for worse — and any gaps in the evidence**

##### **Benefits:**

#### 5. **An aid to learning**

An identified benefit was that digital technology "[...] is not necessarily a bad thing if they're learning". Some of this learning includes the simple act of gaining familiarity with technology.

#### 6. **Supporting Well-Being**

Participants explained that the use of social media aided their mental well-being and helped them to unwind from their homework:

*"[...] and then you'll go back onto social media when you're having a break because your brain's a bit frazzled from all the research. You're just like hey let me talk to my friends and just chill out a little bit."*

##### **Concerns/ risks associated to overdependence:**

#### 7. Many young people mentioned **unhealthy dependence upon digital communication technologies.**

Participants shared their experiences of over reliance/'addiction', in particular on social media and online games, stressing how difficult it is to put away their phones and to switch-off at night, and how this had affected their mental well-being (evidences 8-11).

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<sup>9</sup> <https://casma.wp.horizon.ac.uk/wp-content/uploads/2017/01/iRights-Actors-005-The-Right-to-Make-Informed-Conscious-Decisions-The-Right-to-Agency.mp4>

<sup>10</sup> <https://casma.wp.horizon.ac.uk/wp-content/uploads/2017/01/iRights-Actors-004-The-Right-to-Safety-and-Support.mp4>

## 8. Sleep deprivation

*"I'll be trying to get to sleep and then I'll get a message and you tell yourself, no, just ignore it. And then five minutes later, I'll be like, oh, no, I've gotta see what it says, and then [...] you find yourself having a conversation..."*

*"Well, like on a night before bed, you might go on YouTube and watch some videos, and then you'll have suggestions up by the side, you'll be like, [...] I'll go to sleep after this video. Then you're like, oh, but what about this one? And that's just like a continuous cycle, before you realise it's two o'clock in the morning, you have to be up in five hours."*

## 9. Addiction to online games

*"Um, when the advertisement comes up it does that and you've got a good score so you wanna keep going and then it keeps happening, but you keep going and you get addicted."*

## 10. Annoyance from unhealthy dependence on social media

*"I'm on Twitter [...] I was trying to go to sleep [...] all of a sudden, my phone started notifying me about these people [...] following me and every single time I just had to like wake up in the night [...] check and then it would come again, and again, again, again. And then I was almost [...] I was really about to smash my phone or something because it was annoying. So I just decided to turn off my phone."*

## 11. Self-isolation and impact on user's social skills

*"You shut yourself in and then you just become more isolated. Erm, 'cause you don't get out much, you don't like see people, you don't socialise and then that sort of affects you in future [...] you get a job, you get to be out and about socialising with people, and you're not gonna have any skills to do that."*

### **Concerns/ risks associated to negative emotional states:**

Youth jury participants shared their concerns and experiences from online relationships that negatively affected their self-esteem, made them feel excluded, anxious and created identity issues (evidences 12-14).

## 12. Impact on self-esteem

*"It makes people doubt their style of life, and their way of life, because somebody else's is, in their opinion, better."*

*"It just massively breeds insecurity I mean I'm the eldest of three girls so sisters, and when like it's, it's you're always kind of insecure around this time anyway [...] And what it's kind of done for my sisters I'll say they're getting into that awkward age it's this massive comparison to people who aren't really people. [...], they don't see it and then they have this ridiculous expectation of themselves [...]."*

## 13. Feeling excluded and depressed

*"I feel like, sometimes, when people haven't been invited to like, a party and all their friends have and they see it all over Facebook, [...] and they have to look at everyone's pictures of them having a good time, [...] and they weren't wanted there [...] that can be quite hard for some people."*

*"Sometimes looking at peoples' newsfeed or your newsfeed is slightly depressing [...] I would have wanted to come to that' and then they seem all really happy [...] get me depressed looking at them".*

#### 14. Identity issues: private vs public identity

*"I feel like, most people, what they put on Facebook, it's not really what happens in real life. Like, they do it to make themselves feel good that they're doing something [...]. But other people [...] might think they're rubbing it in their faces, or they might just think that they do this all the time. But it's like, how you interpret it, that's how you feel about it [...]."*

***Other general concerns/risks expressed by young people that took part in the UnBias youth juries:***

#### 15. Adverts

The use of adverts in social media was frequently identified by participants in the youth juries as something that caused significant annoyance. Some also eluded to being bombarded by advertisers; *"[...] whenever I play one game after each level ad, ad, ad. It doesn't stop."* Another participant believed advertisements to be relentless, even though they had actively attempted to take measures to reduce the level of advertising that is directed towards them:

*"Well, I just get annoyed, because yesterday I was on Facebook and it was just coming up with a lot of ads like ad after ad, so I just decided to block all of them but that didn't stop it."*

#### ***2. The areas that should be the focus of any further research needed, and why***

16. Many young people expressed their concerns of platforms making their apps/games addictive. We believe more research should be conducted to investigate this further. Besides, better strategies to regulate this should be in place (see young people's recommendations on question 6).

#### ***3. The well-being benefits from social media usage, including for example any apps that provide mental-health benefits to users***

#### 17. Aiding relaxation

During a youth jury, one participant explained that social media may aid their relaxation, and specifically being able to socialise with friends on social media helped them to do this:

*"And then you'll go back onto social media when you're having a break [...]. You are just like hey let me talk to my friends and just chill out a little bit."*

The participant also went on to say that listening to music also aided their well-being, *"or listen to music and just like soothe my brain."*

#### ***4. The physical/mental harms from social media use and screen-use, including: safety online risks, the extent of any addictive behaviour, and aspects of social media/apps which magnify such addictive behaviour***

#### ***Concerns related to online safety/risks:***

#### 18. Vulnerability and anxiety issues related to Data Sharing

Many young people were unaware that their data was being shared and sold by social media to third party companies. Others knew that their data was being collected online but *"[...] didn't realise that*

they sold it to other companies". After learning more about this during the juries, many participants expressed concerns and anxieties that could cause mental harm:

*"[...] it's actually quite scary how much [...] they actually can get from it, which makes me quite vulnerable in a way from putting something on. And you're thinking oh no one's really going to see it, but actually."*

*"[...] I wouldn't want to know where it's been sold to, because you'd get anxious about [...]. If you didn't know at all then you wouldn't be like wondering where it's going all the time [...]."*

#### 19. **Young people's Location Data**

One of the key online safety risks that participants identified was related to social media being able to identify their location.

*"I was going to say places you have been is quite scary because it's like they have access to your proper location and it's like you said so many companies have access to that, so it's a bit worrying."*

#### **Aspects of social media/apps which magnify addictive behaviours:**

#### 20. **The industry deliberately creates addictive technology**

Young people felt manipulated by the industry but found it really difficult to avoid using it:

*"[...] they want to get your attention at every second [...]. And we tend to fail to realise that [...] it's really addictive and you say you're not but you really are because you just can't stop [...]."*

*"I think that they [industry]...don't mind 'cause the more people are addicted to it, the more funding and money they get from it. [...]. So, if anything, they would want people to be more addicted."*

#### 21. **Peer-group pressure**

Participants felt under lots of pressure by their peer group to reply on the spot to the messages they get on social media adding that it is what's expected from them: *"There's no option but reply to the message."*

When asking young people why they cannot ignore the messages, answers included:

*"People might think that you trying to deliberately ignore them [...]."*

*"[...] if you don't reply to something it seems offensive [...]."*

*"I think it's as well as the pressure to reply it's kind of like the expectation that as a teenager you're...to be up late and you're going to be online...if you're up late you're cool [...]."*

#### **5. The extent of awareness of any risks, and how awareness could be increased for particular groups — children, schools, social media companies, Government, etc**

#### 22. **Accepting Terms and Conditions regardless of any concerns due to the lack of alternatives**

A sense of feeling compelled to be part of a specific social media platform, game or application, made young people accept terms and conditions regardless of their content. Participants explained that these were largely inaccessible, with the majority expressing not reading them at all since accepting them was inevitable if they wanted to use the app:

*“So if you read it once then there’s no point in reading the other ones , [...] you’re going to press OK anyway [...] and it never really affects if I don’t read it, because I’m obviously going to, if I read it and see something I don’t like, I’m probably still going to say OK [...].”*

Others believed that there were no other alternatives to them: *“But then you could argue there aren’t really better alternatives, so you kind of have to let them use your data [...].”*

### **23. Education through Schooling to increase awareness**

Many of the young people believed that their awareness of the issues could be developed through school education.

*“I actually think this is one of the biggest problems and this needs to be talked about more [...] I think schools can play [...] a big role in this as well. ‘Cause everyone knows the harms of cyber bullying and stuff but no one knows the harms about this. And this is a thing that everyone has these feelings. Like they envy people and this affects more people than cyber bullying does [...], this affects everyone on a scale ‘cause this has a larger audience [...].”*

Young people also wanted schools to teach them about how algorithms operate, and what happens to their data when they sign up to social media platforms.

*“I believe that the safety and protection of personal data on the internet should be taught at a basic level at primary school AND TAUGHT WELL! Teachers themselves need to fully (be) aware of what algorithms do and how they work.”*

*“But whereas if we did it in schools and stuff you’d kind of be, I mean websites are good, but nobody’s going to research it purposefully, I think you have to sit people down and tell them the harsh truth of the fact that people are selling their data.”*

### **6. What measures, controls or regulation are needed? Young people’s recommendations:**

Young people were very eager to provide recommendations trying to find solutions to the over-dependence they felt to social media and gaming apps. The most popular suggestions included: time and posting limits on social media, age restriction, removing the elements that leads to addiction to services, access to support groups, etc. (evidences 24-30):

### **24. Time Limited Internet use for Children**

*“[...] you should have a time cap on your games, so if you set like a two-hour time cap within a 24-hour period [...]. So then you don’t have to be like too addictive.”*

Time restrictions were also met with skepticism as one participant pointed out that a regulation would not be adhered to: *“Isn’t that the whole thing? No one really listens to authority that much, especially when it comes to things like this [...].”*

It was also noted that this kind of regulation might discriminate against those with a learning disability whose time on the internet may aid their communication skills: *“[...] there’s young people with learning disabilities such as autism who actually need the internet to communicate with other people [...] that’s a bit unfair to that person [...].”*

### **25. Time notifications**

Interestingly this recommendation compares online over-dependence to gambling addiction, suggesting adding time notifications to help users manage the time they spend online.

*"[...] maybe a notification which popped up saying, you've been on this app for however long. Or like a timer at the bottom which says how long you've been on, because I think that does create a greater awareness [...]."*

#### **26. Limited number of Posts/Messages**

*"So, having posting limits, so be it on Facebook, [...] especially Snapchat [...], if you're exceeding the limit, you shouldn't be able to do any more."*

#### **27. Better controls to enforce Age Restriction**

Some participants acknowledged that whilst those under thirteen years of age are not allowed to register on social media sites, many often do:

*"Because it's easy to lie about your age, all you have to do is put a different year and suddenly you're five years older [...]"*

A discussion took place in one youth jury about how this could be enforced: *"[...] maybe you have to scan your passport [...]"*, as some participants believed that those under thirteen years of age should not be allowed on such sites.

#### **28. Tackling relentless Advertising towards children**

Most participants felt that the relentless advertising directed towards children and young people when they are on social media should be regulated: *"[...] personalisation of advertisements should depend on age of receiver; children should be less exposed."*

Others were more specific in relation to the age of the children, adding that under 15 year olds should be sheltered from aggressive advertising.

#### **29. More control to the users to show their on/off online status on Social Media**

*"To have a choice to show whether you are online and whether you have read a message to remove that pressure to reply."*

#### **30. Access to online Support Groups**

To further support children and young people that have experienced over-dependence and/or emotional distress as a consequence of using on social media/apps, participants suggested the creation of online support groups:

*"There could be things where people, let's say teenagers they can go through stages of having anxiety issues or um, like post-depression and whatnot [...] to have easier access [...] support groups [...] where people can talk to you because personally [...]"*

*"Your mental health and your positive image of yourself, [...] need more influence and more presence of charities such as Childline and the Samaritans. [...]. Just because sometimes you do need someone to talk to, someone to reassure you that it's not that everyone's better than you [...]."*

### **7. Where responsibility and accountability should lie for such measures**

#### **31. Parental and Industry Responsibility/Accountability**

Some participants identified that parents are not necessarily responsible for their children's activity on social media as children may find many ways to elude detection when on social media. However, others believed that parents should take more responsibility for risks their children may be exposed to on social media. There was no consensus about the responsibility of companies for online harm:

*“If you’re a parent and you’re letting your 13-year-old go on social media sites that’s on you [...]. If you think that your child might be exploited or something then you should talk to them about these things [...].”*

*“I do think like parental control is obviously something that parents should take into consideration [...] but, I do think [...] the company should think about the age in which children start to use the internet a lot more.”*

### **32. Internet as cause of child mental health issues**

*“I think the internet is one of the reasons why we have this sort of epidemic of depression now and mental health issues that affect everybody [...]. It’s not positive.”*

### **33. Government Responsibility**

The government should inform internet users of the issues related to over-exposure to the internet, as a health recommendation to people:

*“[...] when you use a website, I think maybe at the top it should tell you the reasonable amount of time you should spend on that website for your health. So, the government could do something like that to help people. [...] the time they’re using, and how you’re impacting them, [...], you don’t know anything, you’re just going to keep on using, but if they tell you a little bit about it, it could help.”*

A participant made an interesting comparison on how laws to prevent addiction to digital technologies could be developed and applied the way gambling laws have:

*“It works in the same way as like the new gambling laws do where you set a limit before you start playing about how much money you’re going to spend.”*