

Impact case study (REF3)

Institution: University of Nottingham		
Unit of Assessment: 11		
Title of case study: Protecting the rights of young people within the digital space		
Period when the underpinning research was undertaken: August 2013 to present		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Elvira Perez Vallejos	Associate Professor	2009 to present
Derek McAuley	Professor	2009 to present
Ansgar Koene	Senior Research Fellow	2014 to present
Tom Rodden	Professor	2001 to present
Period when the claimed impact occurred: 2014 to present		
Is this case study continued from a case study submitted in 2014? No		
1. Summary of the impact		
<p>Research findings from the Horizon Digital Economy research group – disseminated to the UK government – were instrumental in underpinning the amendment added to the 2018 UK Data Protection Act and the subsequent translation and implementation of the ‘Age Appropriate Design Code’ introduced by the Information Commissioner’s Office (ICO). The Code is a set of design standards that ensure online services are designed with children in mind and benefits at least 14 million young people in the UK who access online services. The Code places the UK as a world leader in protecting the rights of children within the digital world.</p>		
2. Underpinning research		
<p>Young people are acutely affected by online services which will continue to expand and to play a fundamental role in social and economic development in the future. An estimated one-in-three under 18-year-olds worldwide are active online, yet they are a markedly underrepresented demographic when it comes to online safety policy.</p> <p>Researchers in the Horizon Digital Economy research group support informed policy making in the digital world, and policy engagement has been designed into research from the offset, supported by the Horizon Hub grants. This has facilitated challenge-led, timely research that addresses issues and informs solutions and opportunities in the digital space. Horizon comprises a multi-disciplinary team of researchers who follow a holistic approach to investigating the challenges and opportunities young people face online. Key researchers include Professor Derek McAuley, Dr Ansgar Koene, Professor Tom Rodden and Dr Elvira Perez Vallejos.</p> <p>In 2014, during the first phase of Horizon funding, ESRC funding was awarded for a two-year project Citizen-centric Approaches to Social Media Analysis (CaSMa), which addressed ethical challenges around social media use through the design of tools and services that enable users to gain more control of their personal data. The project ran in multiple streams and addressed user trust, algorithmic bias and user privacy. Horizon researchers</p>		

collaborated with 5Rights Foundation, a charitable organisation which exists to make systemic changes to the digital world to ensure it caters for children and young people by design and by default. 5Rights was founded by Baroness Kidron, a highly influential children's rights activist.

Key findings of the CaSMA project showed that data acquisition and data mining – used to tune personalisation profiles for information filtering – are ethically contentious practices and highlighted that there was an urgent need for more transparency and informed consent. Results also highlighted the necessity to retain public trust and confidence in online services to prevent public backlash, by actively engaging with the Responsible Research and Innovation agenda [2, 3 and 4]. A key study led by Dr Elvira Perez Vallejos and Dr Ansgar Koene, in collaboration with 5Rights Foundation, saw engagement with over a hundred, 12-to-17-year-olds. Applying the Youth Jury methodology, young people were invited into a safe space to consider, discuss and debate ideas, and reflect on their rights online, and the future of the internet through structured workshops. This methodology elicited youth perspectives on their digital rights [1].

The Youth Jury method of research and engagement was subsequently adopted by the UnBias project which ran from 2016-2018, during Horizon's second phase of EPSRC funding. Between 2017 and 2018, 27 different events engaged 250 young people aged 13-to-17 years. Supported by the concerns expressed by young people during the previous CaSMA engagement, researchers further explored how 'digital natives' judged the trustworthiness and fairness of systems that relied heavily on algorithms e.g., the information chosen to present in a Facebook feed. Participants expressed a range of concerns regarding the effects of social media use, the 'addictiveness' of apps and services, false expectations raised by social media, and intrusive advertising leading to sleep deprivation, unhealthy dependence, low self-esteem, depression, and identity issues. Reported benefits related to learning, relaxing for short breaks, and socialising with friends. On the topic of personal data, participants were primarily concerned about location data and third-party data usage. Concerns were grouped into three themes; transcending the online-offline dichotomy, the role of regulations, and having their needs and opinions heard [5, 6].

Recommendations to government policymakers, regulators and industry chiefs covered six areas: i) data, ii) terms and conditions, iii) removing content, iv) screen shots, v) education and vi) excessive device use. Each area is further discussed in the impact section.

3. References to the research

1. **Elvira Perez Vallejos, Ansgar Koene**, Christopher J. Carter, Ramona Statache, Svenja Adolphs, Claire O'Malley, **Tom Rodden, Derek McAuley**, Glenn Manoff, Rose Dowling, Kruakae Pothong, Stephen Coleman, "Juries: Acting Out Digital Dilemmas to Promote Digital Reflections", *ETHICOMP 2015*, Leicester, 7-9 September, 2015
ACM SIGCAS Computers and Society 45(3): 84-90
2. **Ansgar Koene, Elvira Perez**, Christopher J. Carter, Ramona Statache, Svenja Adolphs, Claire O'Malley, **Tom Rodden, Derek McAuley**, "Privacy concerns arising from internet service personalization filters", *ETHICOMP 2015*, Leicester, 7-9 September, 2015
ACM SIGCAS Computers and Society 45(3): 167-171

3. **Ansgar Koene, Elvira Perez**, Christopher J. Carter, Ramona Statache, Svenja Adolphs, Claire O'Malley, **Tom Rodden, Derek McAuley**, "Ethics of Personalized Information Filtering", *2nd International Conference on Internet Science*, Brussels, Belgium, May 27-29, 2015
4. **Ansgar Koene, Elvira Perez**, Christopher J. Carter, Ramona Statache, Svenja Adolphs, Claire O'Malley, **Tom Rodden, Derek McAuley**, "Research Ethics and Public Trust, Preconditions for Continued Growth of Internet Mediated Research", at *1st International Conference on Information System Security and Privacy (ICISSP)*, Angers, France, February 9-11, 2015.
5. Helen Creswick, Liz Dowthwaite, **Ansgar Koene, Elvira Perez Vallejos**, Virginia Portillo, Monica Cano and Chris Woodard. (2019), "'... They don't really listen to people'", *Journal of Information, Communication and Ethics in Society*, Vol. 17 No. 2, pp. 167-182. <https://doi.org/10.1108/JICES-11-2018-0090>
6. **Elvira Perez Vallejos, Ansgar Koene**, Virginia Portillo, Liz Dowthwaite and Monica Cano, "Young people's policy recommendations on algorithm fairness", in *Proceedings of the 2017 ACM on Web Science Conference*, Pages 247-251 ISBN: 978-1-4503-4896-6 DOI: [10.1145/3091478.3091512](https://doi.org/10.1145/3091478.3091512) [presented at WebScience 2017]

GRANTS

7. CaSMaESRC grant (GBP300,000) - Citizen-centric approaches to Social Media analysis (<http://casma.wp.horizon.ac.uk/>) (2014-2016) Horizon EPSRC follow on grant (GBP5,000,000) – From user data to experience at scale (2015-2020)
8. UnBIAS EPSRC grant (GBP1,400,000) - Emancipating Users Against Algorithmic Biases for a Trusted Digital Economy (<http://unbias.wp.horizon.ac.uk/>) (2016-2018)
9. EPSRC Exploration grant (GBP10,000) - "UnBias: Emancipating users against algorithmic biases for a trusted digital economy"- to evaluate the awareness cards) (2018-2019)
10. Re-EnTrust – Rebuilding and Enhancing Trust in Algorithms EPSRC grant (GBP980,606) <https://www.horizon.ac.uk/project/reentrust-building-and-enhancing-trust-in-algorithms/> (2018-2020).
11. Horizon: Digital Economy Hub (GBP12.5M), EP/G065802/1, EPSRC (2009-2015).
12. Horizon: From Human Data to Personal Experience Horizon Digital Economy Research Hub (GBP4.1M), EP/M02315X/1, EPSRC (2015-2021).

AWARDS

13. Institute of Policy and Engagement 'Best Policy Impact Initiative' Award 2020
14. Emerald Real Impact Awards 2018 – 'Highly Commended'
15. EPSRC IAA Impact Exploration Award 2018
16. RCUK Digital Economy Theme 'Telling Tales of Engagement' Award 2017

4. Details of the impact

Findings from UoN research have directly contributed to the UK's current position as a world-leader in designing and implementing online protection for children through the 'Age Appropriate Design Code' that came into force on 2 September 2020. More than 9 in 10, 5- to 16-year-olds in the UK use online services ([OFCOM2019](#)) and the implementation of the Age Appropriate Design Code ensures that the rights of those ~14 million children are prioritised in the design of online services.

The expertise and outputs of researchers working on this programme of work – led by the Horizon Digital Economy research group – has driven policy change to protect the rights of young people online nationally. Collaboration with key stakeholders and the contribution of

evidence-based research findings have ensured the Horizon team are a key influencer and trusted source for policy consultation. The approach of engaging young people in the research from the offset has enabled their own concerns and proposed solutions to reach public debate and influence policy change.

Influencing government discourse and policy change

In January 2017, the report 'The Internet on Our Own Terms', a key output from the Horizon led CaSMA project, was launched in the UK parliament by Baroness Kidron. The report detailed the Youth Jury findings which provided evidence for the key recommendations; provision of comprehensive digital education; and more visibility, control and transparency online for young people [C]. Following the submission of written evidence by Horizon for the House of Lords enquiry 'Growing up with the internet', Professor Derek McAuley was the only academic researcher to be invited to the House of Lords to present oral evidence on 11 October 2016 to 11 members, at a meeting chaired by Lord Best [B]. Professor McAuley disseminated the key findings of the Youth Juries in the CaSMA project and within his evidence, addressed age appropriate design, accessibility of terms and conditions, privacy of age verification mechanisms, education and monetisation of data.

'Growing up with the internet', a House of Lords Select Committee report, was published in March 2017 and cited Horizon research 7 times in paragraphs 85, 170, 171, 175, 235, 272, 291. The content included the key topics Prof McAuley addressed when invited to the House of Lords and outlined in the 'The Internet on Our Own Terms' report: safety of Internet of Things, accessibility of terms and conditions, control over personal data, and a lack of transparency of how algorithms work. A key recommendation was a call for sustained leadership from government at the highest level, including a minimum standard for those providing internet services and content, and a commitment to child centred design [D].

Building upon these contributions to political discourse, Baroness Kidron successfully lobbied for an **amendment to the UK Data Protection Act, 2018** (enshrining EU GDPR in UK law) during the House of Lords report stage to include child specific protection [E]. This was approved in November 2017 with cross-party support, becoming section 123 of the act, requiring the Information Commissioner's Office (ICO) to introduce an Age Appropriate Design Code to set standards that make online services 'age appropriate' [F]. *'Research findings from CaSMA and UnBias projects led by Horizon were instrumental to the campaign led in 2017, which resulted in the successful amendment to the UK Data Protection Act, 2018,'* Baroness Kidron [A].

Contributing to content of new UK legislation

In addition to research findings from Horizon Digital Economy influencing the amendment to the UK Data Protection Act 2018 to protect the rights of young people, the research also informed the content of the 'Age Appropriate Design Code' developed by the Information Commissioner's Office, UK.

In September 2018, Horizon and 5Rights Foundation submitted written evidence to the finalised ICO Code, based on the key findings from the UnBias and CaSMA Youth Juries [G]. One of the six key documents used to evidence the Age Appropriate Design Code, the 'Digital Childhood report' was developed in December 2017 by 5Rights with contributions from academic researchers including Elvira Perez, and referencing findings from Horizon

research, 'The Internet on Our Own Terms' on pages 8, 9 and 11 [H]. The final code was published by the ICO in January 2020 and came into force in September 2020. It includes 15 provisions for the protection of children's data and is currently undergoing a 12-month transition period to enable organisations who provide online services that are likely to be accessed by children in the UK to make the necessary changes in the best interests of the child. The Information Commissioners office states; '*In the UK, Parliament and government have acted to ensure that our domestic data protection laws truly transform the way we safeguard our children when they access online services by requiring the Commissioner to produce this statutory code of practice. This code seeks to protect children **within** the digital world, not protect them from it*' [I]

To date we see emerging compliance, such as Tik-Tok removing direct messaging for under 16s and Instagram removing the "following" tab. However, most international organizations will be taking the transition period to implement the changes needed and so we will continue to see emerging compliance as we approach the September 2021 deadline.

Contributing research evidence to child rights organisation, 5Rights

Since 2014, the 5Rights Foundation and Horizon Digital Economy research group have collaborated to generate and disseminate evidence of high academic rigour to support submissions to inform policy makers, children's organisations, and regulators in the rights of children online. Horizon researchers have supported 5Rights in their mission to create a digital world fit for children and young people, ensuring that the recently passed legislation – the Age Appropriate Design Code – and future regulation, is based on high quality research evidence.

The expertise of the Horizon researchers has also supported 5Rights' work consulting on the development of The General Comment for the United Nations Committee on the Rights of the Child (UNCRC), an authoritative interpretation on how to interpret and implement children's rights for governments worldwide. Ansgar Koene's position on the board of trustees for 5Rights has further strengthened the translation of research to policy evidence; in particular, his expertise on AI ethics and their relation to children [A].

5. Sources to corroborate the impact

- A. Testimonial from Baroness Kidron, August 2020 [PDF]
- B. Oral Evidence disseminated to House of Lords by Derek McAuley on 11 October 2016, 'Growing up with the internet report' Hansard Written Script [PDF]
- C. The Internet On Our Own Terms report and evidence of launch in parliament, January 2017 [PDF]
- D. Growing Up With The Internet report, March 2017 (including 7 citations to UoN research) [PDF]
- E. Baroness Kidron debating the amendment to Data Protection Act 2018 – Hansard Written Script, 11 December 2017 [PDF]
- F. Data Protection Act amendment 2018 [PDF]
- G. ICO Age Appropriate Design Code, written evidence from Horizon and 5 Rights, 2018 [PDF]
- H. Digital Childhood report, 2017 [PDF]
- I. ICO Age Appropriate Design: A Code of Practice for Online Services, 2020 [PDF]