

Designing data transparency for children

Insights from the Children's Code
transparency champions open call

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Foreword

Stephen Bonner – Executive Director Regulatory Futures and Innovation

Transparency is about more than just explaining what data gets gathered, how it's used, where it goes. Bad privacy information design obscures risks, unravels good user experiences, and sows mistrust between children, parents and online services.

Great transparency design empowers children to realise the benefits of their personal data, builds digital literacy and resilience. It lays the foundations for children and parents to navigate the online world together with understanding, and without conflict. The Children's code transparency standard compels organisations to realise this positive vision, and ensures they ultimately design services that have the best interests of children at their heart.

We recognise that online services are still on a journey to conforming with this standard. Our transparency champions open call supported them through this process. This report celebrates current good practice observed through the call, and showcases the 'art of the possible' when it comes to designing data transparency for children.

I thank the 21 organisations who participated in the call for their openness with their work, and for the excellent standard of submissions received. We see this as the beginning of an ongoing conversation around how to better design data transparency for children. These submissions demonstrate that great design can be innovative and yet conform to data protection requirements. Engaging the audience isn't optional to ensure real transparency.

I hope you enjoy these highlights, and that they provoke you to design better online services for children.

The transparency champions open call

In February 2021, the Information Commissioner's Office (ICO) launched the Children's code transparency champions open call.¹ The call invited participants to share their vision for how online services can meet the code's transparency standard,² and empower children to understand and meaningfully engage with how their data is used.

The transparency standard sets out principles for the effective design of policies and community standards, privacy information and choices for children. This ensures they are concise, prominent and accessible to children of all ages. It articulates how online services that are likely to be accessed by children should comply with the principles of fairness and transparency. These are two fundamental cornerstones of data protection law in UK GDPR Article 5 (1).

The open call was motivated by a desire to share current good practice and emerging innovations in this space. It recognises the fact that there is still progress to be made as we approach the end of the code transition period in September 2021. We hear from stakeholders that privacy information can be hard to find and understand, and is too often treated as a tick-box compliance exercise. A 2018 academic review of the 1,200 highest ranked apps targeted at children from the Google and Apple app-stores found the average reading age for privacy policies was 13 years-old³. This is understandable given the complexity of the average services' data use, but still four years above the Office for National Statistics' estimated average UK adult reading age of nine.⁴

21 participants responded to the call, representing a range of apps, websites, games, children's rights advocates, academics, and students. We thank them for their willingness to be open with their work and the excellent quality of submissions that will offer invaluable inspiration for other organisations in-scope of the code and beyond.

This report outlines the findings of a review of open call submissions by the ICO Children's code team, members of the ICO Children, parents and schools Advisory Panel (CAP), and design agency Big Motive.⁵ Their collective expertise spans data protection law and the code, children's rights and development needs, and digital service design. Reviewers were asked to reflect on how submissions meet the good practice principles outlined in the code's transparency standard, including accessibility, prominence, and tailoring information to the age of a child. The open call text, including more details on

¹ [Children's Code: Transparency champions open call | ICO](#)

² [4. Transparency | ICO](#)

³ [JMIR mHealth and uHealth - Privacy Policies for Apps Targeted Toward Youth: Descriptive Analysis of Readability](#)

⁴ [Reading level – Style.ONS](#)

⁵The ICO are partnering with Big Motive to develop Children's Code support and guidance for the design community: [Home • Big Motive](#)

these principles, is provided in annex A. The following sections highlight thematic areas of good practice identified for others to draw inspiration from, and discuss opportunities for further progress of designing transparently for children.

Six recommendations for designing transparency for children

We have six overarching recommendations for organisations looking to design effective privacy choices and information for children. These are drawn from the good practice themes and opportunities for future progress outlined in the following sections:

1

Be creative with format – but avoid style over substance.

Iconography, video, cartoons, audio and characters can all be really effective in engaging children with privacy information and choices. The medium used should ultimately depend on what your child users can relate to and makes sense in the context of your service's user experience, not just what looks best.

2

Put children's needs and views at the heart of the design process.

Engage with your child users at all stages of the design cycle to ensure your service meets their needs and best interests. If this isn't feasible, look for existing evidence on children's needs. Use child-appropriate design approaches, building on available open-source design tools, if needed (some of which are mentioned in this report). Use insights gathered to help evidence to the ICO that your services meet the code transparency standard.

3

Meet children and parents where they are. Be realistic about the average child's, and parent's, levels of data literacy. Provide resources to help them where they don't understand privacy information.

4

Unbundle privacy information for engagement and understanding.

Avoid temptations to condense all privacy information into one place. Think about engaging with children in a more targeted way, at the points where the information is most relevant and needed.

5

Create space for meaningful parent-child conversations.

Design moments, and supporting resources, for guardians and

children to discuss privacy information and choices together – not just fleeting tick-boxes for gaining parental consent.

6

Prominence is key. Don't just focus on making the transparency design effective, ensure children will interact with it too. Look for ways to embed privacy moments in children's common user journeys and service interactions. Gamification and nudging help lead users towards privacy information.

Good practice themes

Accessible mediums

Online the status quo for terms and conditions and privacy policies is written text. But for many children, whose literacy and cognitive skills are still developing, this creates considerable challenges around accessibility and engagement. The code encourages online services to address these challenges by thinking carefully and creatively about the mediums they use to convey privacy information. They should explore the use of iconography, audio, video and other forms.

Open call submissions spanned this diverse range of mediums, and included comic strips, videos, games, and an array of privacy characters intended for children to engage with.

Several organisations developed child-like characters that were grounded in their pre-existing design language and service features, including Lego's Captain Safety,⁶ and Google's "Be Internet Legends". The rationale behind the use of such characters was articulated by Google's submission, who outlined their design principle for younger children to "bring a childlike character with who they can relate to into the mix".

⁶ <https://www.lego.com/en-gb/kids/legal/cookie-policy>



Figure 1: A still from Lego's "Captain Safety" safety policy video.

Cracknell Law's visual legals team submitted a dynamic illustrated concept, where their character's actions reflect the app's changing use of the child's own geolocation data in real-time. The benefits of such an approach were articulated by one Children's Advisory Panel member, who observed that "a cartoon can capture a scenario that people are familiar with and use that as a platform for relating the scenario to privacy". The Children's code team thought that embedding privacy information as part of the design results in a more consistent user experience. Children might engage more with privacy information that does not feel separate to the design of the service or take them away from their core activity.

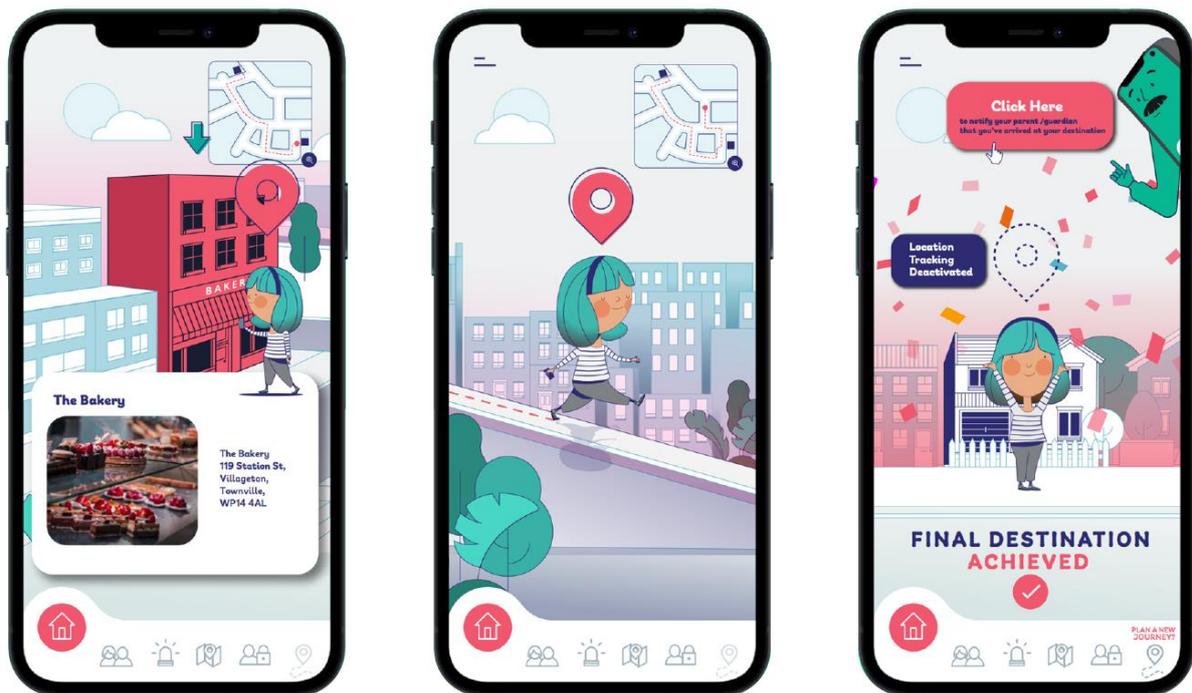


Figure 2: Cracknell Law’s geolocation app cartoon depicts how child users geolocation data is being used in real-time.

Open design methods and child participation

Some participants used the open call to share innovative design approaches for children, with a view to supporting others to ensure their service designs are effective and meets children’s needs in the real-world. Others, in setting out their rationale for their concepts, highlighted important insights and sources of evidence for understanding children’s changing capacities.

TTC labs submitted their ‘How to design with trust, transparency and control for young people’ design guide.⁷ This encompassed design principles for children, guidance on running co-creation “design jams” with children, and a series of child user personas corresponding to each age from nine to 18. The review panel commended the guidance’s focus on involving young people directly in design conversations, and saw the guidance as an accessible gateway into design thinking for organisations unfamiliar with such approaches. Google’s “snowball

⁷ [TTC Labs - How to design with trust, transparency and control for young people](#)

fight”⁸ and “co-create illustrations methods”⁹ were praised for introducing play into design approaches, and exploring ways for non-verbal communication that are particularly accessible for younger children.

Elsewhere submissions highlighted external bodies and resources that can support transparency concept design. Revolut described how their Revolut Junior privacy policy¹⁰ text was iterated through beta testing with a panel of child users and engagement with the Plain English Council. For Schilling’s “jargon-free social media Ts & Cs” submission, the law firm partnered with education platform Tes and a qualified primary school teacher to develop the concepts.

The Behavioural Insights Team’s use of online experiments and trial data for design testing was commended for focus on understanding real-world behavioural interactions with designs, and questioning assumptions about how people behave online. SuperAwesome also used the PopJam platform to consult with a community of children in the development of their designs.

More broadly, the Children’s code team noted the potential for data and evidence to be used to demonstrate code conformance, and meet the Data Protection Impact Assessment standard’s recommendation to consult directly with children and parents. This evidence was generated throughout the design process but particularly from the direct feedback or observed service behaviours by children.

⁸ Google describe this method as “*Enacting a snowball fight is a playful research method to assess participants’ current knowledge of key terms and understand what words they use to describe them.*” They describe a four-stage process: “1. Prepare privacy concepts/terms you want to learn more about and write them down on small pieces of paper. Crumple them up. 2. Get children and parents together in small groups. Let them choose a piece of paper. Ask them to use the piece of paper as a snowball and throw it at each other. 3. After 30 seconds, ask everyone to open their piece of paper and describe what it says without using the written down word. 4. Record how easily and accurately children were able to describe and guess concepts. Learn from how parents are describing concepts to children.”

⁹ Google describe this method as “Ask participants to draw specific concepts and then use the drawings as a conversation starter.” They describe a four-stage process: “1. Before the research session, ask children to complete drawings of 1-3 concepts you want to talk about as pre-work. Provide examples of fidelity of drawings you’re looking for, so children are not intimidated. 2. Prepare a grid of adjectives you want to know about for your illustration guidelines as a notes sheet, so you can easily check boxes during the research session. 3. In 1:1 research sessions, ask children which drawing they want to start with and what they want you to know about it, to keep it open-ended. 4. Note how children talk about their drawings (eg, do they give it a name?) and note what they look like (eg, an abstract shape? an animal? what colours are used?) to help inform your illustration style.”

¹⁰ [Terms & Policies | Revolut](#)

Meeting children and parents where they are

Across submissions, the review panel felt organisations did a good job of articulating information in simple child-friendly language. They implied a good understanding of what child users can reasonably be expected to understand.

Parentzone were also commended for including a “I don’t understand” option in their Ollee design. This was seen as a simple-but-effective approach:

- for testing the user experience;
- understanding general levels of child-user literacy; and
- opening a pathway for children to request more or less complex information (which the code transparency standard recommends).

One reviewer reflected on how formats children engage with in their everyday lives – specifically memes - could be used to promote engagement and understanding. “Memes might be more effective – [children] are often already invested in them and it changes the power dynamic: They are in on the joke, which could lead to greater understanding and behaviour change, [and] it’s something people are familiar with”.

Elsewhere other submissions acknowledged that parents and teachers will often need support to understand and engage with privacy choices on behalf of children. The review panel noted this was important given adults’ data literacy is often no better than older children’s.¹¹ Google, XRSI, and Schillings all provided dedicated resources for this audience.

Opportunities for progress

Unbundling privacy information for clarity

Clarity and simplicity of information is a fundamental cornerstone of transparency. For service features such as privacy policies where multiple forms of data processing may need to be communicated, clarity is particularly important.

¹¹ [Me-and-My-Big-Data-Report-1.pdf \(liverpool.ac.uk\)](#) / [Data literacy: what is it and how do we address it at the ODI? – The ODI](#)

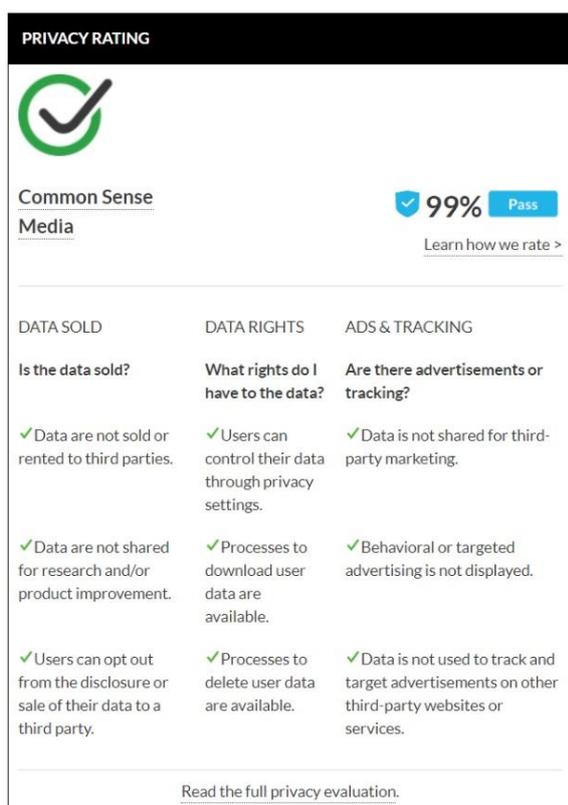


Figure 3: An example of a Common Sense Media privacy nutrition label

The review panel noted submissions did well to translate content into child-friendly language and accessible formats. But they also felt some attempted to condense too much information into a single design, and advised online services to be more realistic about the average child user’s level of data literacy. On the latter point, Parentzone’s “Ollee” design was praised for “starting with the fundamentals of saying what data is, which is fantastic – too often we forget that”.

Some review panel members saw potential for standardised, cross-service, iconography and platform features to help children distil complex privacy information into key messages. This includes Common Sense Media’s “privacy nutrition label”¹² and Juventude Privada’s “data assistant”¹³. Here however

they noted significant challenges around adoption and scale, with the success of these approaches ultimately dependant on the extent to which they are commonly recognised by children and parents.

The feasibility of communicating complex issues through iconography, and the importance of testing icons interpretation with users to ensure they don’t inadvertently mislead, also needs to be considered.

Supporting meaningful parent-child engagement

Parents and guardians play a fundamental role in supporting young people to navigate their privacy choices online. Parents must give consent on behalf of children under 13, whilst those in older age groups may still require parental

¹² [Building a Better Nutrition Label for Privacy | Common Sense Education](#)

¹³ Juventude Privada’s description: “Inspired by the animated paperclip assistant “Clippy”, released by Microsoft for Office in 1997, I would like to propose the creation of an animated data assistant, which would be available to explain to users of applications and websites their rights, use of data and other relevant information about data protection and privacy. The assistant could be implemented across all sectors that engage with children, so that it becomes a reference in the market.”

support to understand the implications of their choices – particularly where data processing is complex or risky.

Review panel members outlined the importance of design in mediating these parent-child conversations. There should be a balance between the need for parental oversight and support with children's rights to have their views heard and develop their digital and data literacy.

Two submissions were commended for providing supplementary materials for parents and teachers to understand and explain privacy information to children. But in general the panel felt more could be done to strike this balance, with designs tending to focus on gaining parental consent over creating a space for genuine dialogue between them and children.

One reviewer saw potential to increase the friction of privacy choice designs, reflecting that "for digital services friction has often been the enemy. But if we can reframe friction as [an opportunity for engagement]– encouraging children and parents to ask do I understand, is this for me? – that would be great. And that for me is a much more interesting challenge for designers". The panel also saw opportunities to nudge children to engagement with information provided (for example through gamification or quick quizzes) into designs. And also to identify where simpler information may be required if a child doesn't understand.

Prominence and engagement

Reviewers noted that whilst organisations' designs were excellent, in some cases they were difficult to locate in-situ on their services. For example, requiring several page click-throughs to find, or placed at the bottom of a lengthy privacy policy.

One reviewer also reflected on opportunities to further increase the impact of engaging privacy characters by placing them throughout children's user journey using "just-in-time" notices. They stated "It would be nice if the character could explain [data use] in smaller pieces, in different places. Children would then start to associate that figure with privacy choices as well".

Beyond ensuring prominence of designs, a small number of submissions highlighted other approaches for nudging children's engagements with privacy information. The Behavioural Insights Team's reading time label concept shows potential promise. They report that labels estimating how long the average user will take to read privacy information boosted click-through rates by 105% - although it should be noted that this testing was done with an adult user group which may not translate to a children's audience. The Children's code team also noted that additional metrics are likely needed to develop a holistic picture of the effectiveness of privacy information design. For example, exploring reported comprehension, variation of reading times between users, and the relationship between such metrics and consequent user behaviours.

Next steps

We see the transparency open call as one stage of a wider conversation around designing effective privacy information and choices for children. Up to the end of the transition period in September 2021, we will be developing design guidance and artefacts. These will support designers and engineers to make design changes their organisations will need to conform with the code.

There will be opportunities for designers and engineers to shape and engage with this guidance, through a series of ongoing co-design workshops and events. Transparency will be a focus area for this work programme. We will consider the themes identified as opportunities for progress within this report. If you would like to participate in this work, please email childrenscode@ico.org.uk.

Annex A: Transparency champions open call text

The ICO Children's code team are launching an open call for transparency champions. We'd like to hear from online services, children's rights advocates, designers, academics and anyone else working to deliver our vision to place the best interests of children at the heart of the online world.

Why transparency?

The [Children's code transparency standard](#) sets out a vision for better privacy information, where children can easily understand how, when and why services use their data free from friction, opacity or confusion. Online services are working hard to meet this vision. But we recognise there's still progress to be made.

A [2018 review](#) of the 1,200 highest ranked apps targeted at children from the Google and Apple app-stores found the average reading age for privacy policies was 13 years-old – four years above the average reading age for an adult in the UK of 9. We've heard from stakeholders that privacy information can be hard to find and understand, and is too often treated as a tick-box exercise.

What does the open call involve?

Participants are invited to submit ideas and examples of privacy information designs that meet the vision of the Children's Code transparency standard. **The deadline for submissions is 23.00, Friday 30 April 2021.**

Submissions can be speculative designs, early-stage prototypes, or already used in the real world. All sectors and services are invited to take part, from connected toys to edtech.

These submissions may be developed by you, or could equally support the good work you think others are doing in this space. Concepts could speak to some or all of the good practice outlined in the Children's code, including:

1. Providing privacy information in a child-friendly way, using wording, iconography or other forms of media that are tailored to the age of child users
2. Positioning privacy information within the user experience to ensure it responsibly captures children's attention
3. Solutions for providing "bite-sized" privacy information at the point that its needed by children
4. Approaches for enabling children (and guardians) to seek more or less detail where wanted

5. Designing effective incentives and controls that encourage younger children to seek the support of an adult where needed
6. Examples of how organisations are measuring the accessibility and usability of privacy information
7. Anything else that places the best interests of children at the forefront of privacy information design!

Submissions will be reviewed by the ICO's Children's Advisory Panel, who will choose a selection to publish on the ICO Children's code Hub as good practice for the Children's code community to learn from.

We won't crown "winners", nor use submissions for anything other than championing good practice. We recognise organisations' Children's code journey is not finished, and we do not expect organisations to have produced perfect solutions at this stage in the transition period.

How can I get involved?

We'd love to hear from anyone with an interest in championing better transparency for children online. You can submit a concept developed by you/your organisation, or submit the work of another organisation that you respect.

We are happy to receive submissions in forms compatible with email, including screenshots, weblinks, documents, videos. Please send submissions to childrenscode@ico.org.uk.

In your submission, please include the following details:

- Your name and contact details (we will only use this to contact you should we wish to discuss and seek consent for using your submission publicly)
- A link or attachment to the submission concept
- The name of the organisation or individual who developed/owns the concept
- A brief (>100 words) explanation of how you believe the concept meets the vision of the Children's Code and Transparency standard, supporting evidence, and areas for future development

Submissions will be handled in accordance with our [consultation requests privacy policy](#).

Following the conclusion of the open call, we will be working with a design agency to develop further design guidelines and guidance to help online services conform with the Children's Code. For more information on the Children's Code, visit the Children's Code Hub at <https://ico.org.uk/childrenscode>.