The Children's Code industry barometer:

Transition period mid-point view

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children's code

Contents

In summary

The Children's Code industry barometer outlines the findings of a quantitative survey with representatives of over 500 information society services. These participants collectively reflect the landscape of apps, websites, software and device developers in scope of the Children's Code.

The research, delivered on behalf of the Information Commissioner's Office (ICO) by independent research providers IFF Research in January 2021, provides a snapshot of online services' views on the code at the halfway point of its 12 month transition period.

Respondents are broadly confident in their understanding of the code and their organisations' ability to conform with the code's 15 standards by the end of the transition period. But many online services are still on a journey towards code conformance, and this research shows there is a need to address common code-related misconceptions, continue to monitor and minimise costs to industry, and develop detailed guidance on key code standards. Key insights include:

- Overall awareness of the code, and the data protection legislation that underpins it, is high. 73% of organisations had heard of the code to some extent, and nearly all (98%) had heard of the UK GDPR and Data Protection Act 2018 (DPA 2018). Almost three quarters report a "good understanding" of the code theory, with a similar proportion confident in the actions that they need to take to apply it.

- 92% of respondents believe they would be conformant with the code by the end of the transition period - 44% believe they already fully conform with the code, with a further 40% believing they conform to "a large" or "some" extent. Micro and small businesses (with less than nine and 49 employees respectively) are less likely to report deeper understanding of the code, and report less progress with conformance, than medium and large organisations.

- Respondents' broad confidence in understanding the code's theory does not always translate to awareness of its fundamental concepts and scope. Only 39% are aware that the code is grounded in the UN Convention on the Rights of the Child, and around half incorrectly believe it applies to offline businesses. Around two-thirds believe that the code imposes a "general duty of care" to protect children from all possible harms on their service. This more closely describes the forthcoming UK online harms regulation, that will be overseen by Ofcom.

- Around three in four respondents said events like the COVID-19 pandemic and changes in the commercial landscape due to Britain leaving the EU are inhibiting their ability to prepare for the code. Four in ten of those aware of the code expect it to impose some economic costs on them –

with a similar proportion also foreseeing opportunities for their organisation.

- Respondents see many opportunities for the ICO to support them to address code-related challenges and support them to reach conformance. Some of the most useful forms of support cited by respondents were:
    - published guidance (53%);
    - templates and exemplars such as data protection impact assessments (50%); and
    - further information on ICO's approach to regulatory action (36%).

Introduction

This report outlines the findings of a quantitative survey with representatives of over 500 information society services (ISS). These participants collectively reflect the landscape of apps, websites, software and device developers in scope of the Children's Code ("the code").[1] The code – also formally known as the Age Appropriate Design Code – is a statutory code of practice under the Data Protection Act 2018. It contains 15 flexible standards that provide data protection by design for children and allow them to explore, learn and play online. It ensures that the best interests of the child are a primary consideration for organisations designing and developing online services that children are likely to access.

The research, delivered on the ICO's behalf by independent research providers IFF Research across January and February 2021, is a snapshot of online services' understanding of, and attitudes towards, the code at the halfway point of the code's 12 month transition period. The transition period runs until 2 September 2021 and gives in-scope services time to conform with the code, before the ICO starts to take it into account in any regulatory action. Appendix A outlines the aims, methodology and sample profile for the research.

Findings show organisations are making good progress to deliver on the code's vision, and highlight areas where the ICO continues to support and work with online services on their journey to conformance. The following sections:

- benchmark current understanding of the code;
- outline positive impacts and progress on code conformance;
- highlight challenges and costs; and
- summarise next steps for the research and areas of future focus.

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[1] [Age appropriate design: a code of practice for online services | ICO](#)

Understanding of the code

Overall awareness of the code, and the data protection legislation that underpins it, is high. 73% of organisations had heard of the code to some extent and nearly all (98%) had heard of the UK GDPR and Data Protection Act. 94% of participants were aware of the ICO, with 75% either "very" or "fairly" familiar with our work.

Figure 1 shows how awareness of the code varies across organisations of different sizes. Whilst micro (0-9 employees) and small businesses (10-49 employees) are relatively less likely to have heard of the code, it is not the case that awareness levels increase in line with organisation size. The depth of understanding of medium sized organisations (50-249 employees) broadly equates to that of large organisations (over 250 employees). Respondents working in IT management and data protection compliance are – understandably, given the focus of their roles – more likely to report a detailed understanding of the code than those in engineering, product development, finance and public policy.

Business models and sector also have some bearing on awareness levels. **Organisations that generate revenue through direct sales or subscriptions are less likely to have heard of the code** than organisations who monetise users' data (61% and 96% respectively). Similarly, organisations that process data but whose revenue comes only from the sale of products[2] are also less likely to be aware of the code than those who generate revenue by monetising users' data directly (59% and 85% respectively). However, placing these findings in context, organisations that generate money from users' data, and offer services, also tend to be larger.

Whilst awareness is uniformly high (above 80%) across the key sectors in scope of the code explicitly covered in the survey demographic questions[3], there is a degree of nuance with news and education website providers. Respondents from this sector are both less likely to report a detailed understanding; and twice as likely to have never heard of the code than other sectors.

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[2] These organisations either use the internet or internet-enabled services to sell products (for example e-commerce platforms), or sell internet-enabled hardware products such as connected toys and devices.

[3] These service sectors include "online marketplace for third party goods or services", "online gaming or streaming", "music and video streaming", "social media services", "online messaging or voice telephony services", "news or education websites and subscription services", "connected toys and other connected devices" – other sectors correspond with the "other" category.
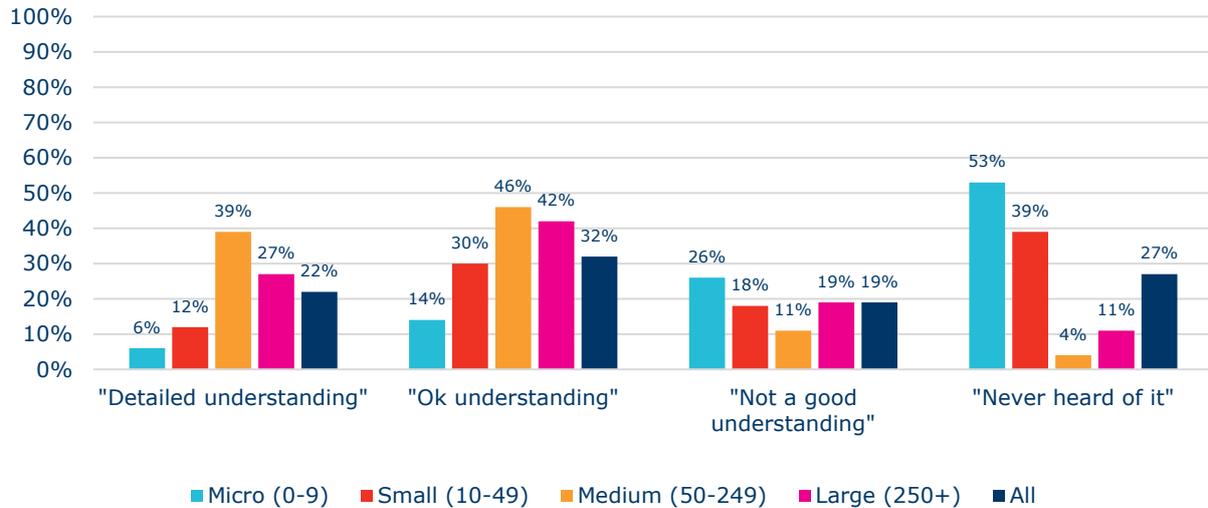
Children's code understanding

Figure 1: Responses by organisation size to "Have you heard of the Children's Code? This is also known as the Age-Appropriate Design Code"

Beyond general awareness of the code, the research also explores participants' understanding of the code's aims, specific standards within it and its practical application.

Organisations draw little distinction between theory and practice in conforming with the code. **Almost three quarters report a "good understanding" of the code theory, with a similar proportion confident in the actions they need to do in order to apply it**. Respondents whose services are targeted at children report a firmer grasp of both the theory and practical actions for conformance, compared to those whose services have a general audience. This perhaps reflects their greater familiarity and direct experience of designing services with children's interests in mind. The relationship between organisation size and reported understanding in these areas broadly mirrors the trends we saw for general code awareness: medium and large organisations feel more confident, whilst micro-businesses feel less so.

In some places, respondents' broad confidence in understanding the code's theory does not translate to awareness of its fundamental concepts and scope. Only 39% are aware that the code is grounded in the UN Convention on the Rights of the Child, and around half incorrectly believe it applies to offline businesses that use children's data. One in two are not aware that the code applies to children under 18 – 30% believe it applies to under 16s, with around 10% each believing it either applies to under 13s (the minimum age of informed consent under UK GDPR) or has no age limits.

Whilst two-thirds recognised the code's vision to safeguard children's data and ensure it is processed fairly, a similar proportion also believe that the code imposes a "general duty of care" to protect children from all possible harms arising from their service. This more closely describes the forthcoming UK online harms regulation that will be overseen by Ofcom.

Positive code impacts

At the halfway stage of the code's transition period, organisations say they are making good progress on their journey to conformance. **Overall, 44% believe they already fully conform with the code, with a further 40% believing they conform to "a large" or "some" extent**. Echoing trends seen for general awareness levels, micro and small businesses are less likely to feel confident about conformance at this stage than medium and large businesses. Figure 2 below breaks down reported code conformance progress by organisation size.
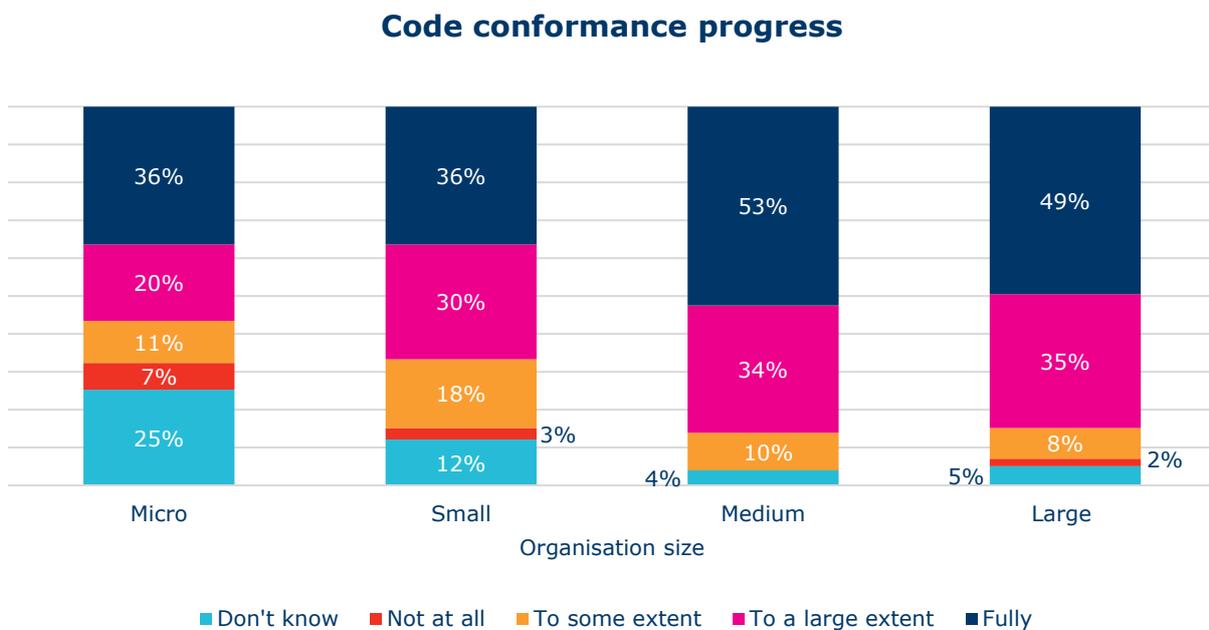
Code conformance progress

Figure 2: Responses by organisation size to "Based on what you now know about the Children's Code, to what extent do you think your organisation currently conforms with the standards in the code?"

Only 6% of those who are not yet fully conformant don't believe they would be before the end of the code transition period. A further 12% state they don't know when they will be conformant. Taking all the above findings into account, **overall 92% of respondents believe they will be conformant with the code at the end of the transition period.**

Over one third of organisations had made recent changes in how they use children's data, with medium (60%), large (51%) and organisations that generate revenue directly from users' data (62%) particularly likely to have made them. The code is playing an important role in driving these changes, with 59% of those who have made changes stating that they did so in response to its requirements.

A number of key code sectors and products are making changes in children's data processing practices, such as:

- games device developers (77% made changes);
- phone developers (68%);
- software providers (68%);
- online gaming (73%);
- music and video streaming services (72%);
- connected toys and devices (73%);
- online marketplaces (66%); and
- health and fitness services (62%).

Figure 3 outlines the substance of these changes.

Four in 10 respondents also foresee opportunities for their organisation arising from the code. Opportunities they identify include:

- increased customer confidence (13% of those who see code-related opportunities);
- increased profits (11%); and
- knowing that they can provide a safe space for children online (9%).

Change to children's data processing practice	% that have made change*	Sectors where change is more likely
Dedicated resources to reviewing the code	55%	Online messaging and telephony (67%)
Changes to aspects of service's user experience	55%	Online gaming (64%) Educational services (62%) Marketplaces for third party services (62%)
Reviewing data-related risks to children	44%	Connected toys and devices (68%) Health and fitness services (58%)

Developing approaches for estimating the age of users	41%	Phone devices and services (52%)
Reviewing privacy information and policies	35%	Online news and media (48%)
Reviewing data protection impact assessments	35%	Online news and media (59%) Connected toys and devices (52%) Health and fitness services (49%)

Figure 3: Responses to "What changes have you or your organisation made in relation to the use of children's (under 18) data?" (*base: 187 respondents who have made recent changes to children's data processing practices).

Code challenges and costs

Organisations see the code transition period in a wider commercial context, characterised by complexity and uncertainty. **Respondents outlined how they are actively responding to the COVID-19 pandemic, changes in the commercial landscape due to Britain leaving the EU, escalating cyber-security threats and preparing for the UK's incoming online harms regulation**. These developments are having a direct impact on code preparations. Across these four areas, the proportion of organisations they affect that state they are "inhibiting their ability to prepare for the code" is consistently around three in four.

External forces are not the only challenge to code conformance. **One quarter of respondents expecting to make changes to conform with the code anticipate internal barriers when doing so**. This figure is lowest for micro-businesses at 10%, and highest for medium organisations at 42%, suggesting internal code-related challenges aren't closely linked to resources. Organisations with more complex commercial models are more likely to report internal barriers, with this figure rising to 44% for those that both generate revenue from direct payments or subscriptions and user data. Internal barriers are also more likely in organisations developing:

- games devices (54%);
- online gaming services (51%);
- phones (49%);
- social media services (43%); and
- computer software (38%).

When asked to articulate these barriers, many respondents were not able to, with **55% stating they didn't know what the barriers would be**

(significantly exceeding the next most common responses of "finances" and "training", which 9% of those who foresaw barriers cited). One interpretation of this finding is that it reflects a general view that new regulations create internal tensions, or perhaps that respondents feel unable to predict how steps to conform with the code will play out in practice.

41% of respondents who are aware of the code's requirements say that their organisations incurred financial costs as a result of the code. A similar proportion also stated they expect to incur more costs in the future. Figure 4 summarises the scale of these costs across a range of organisation sizes.
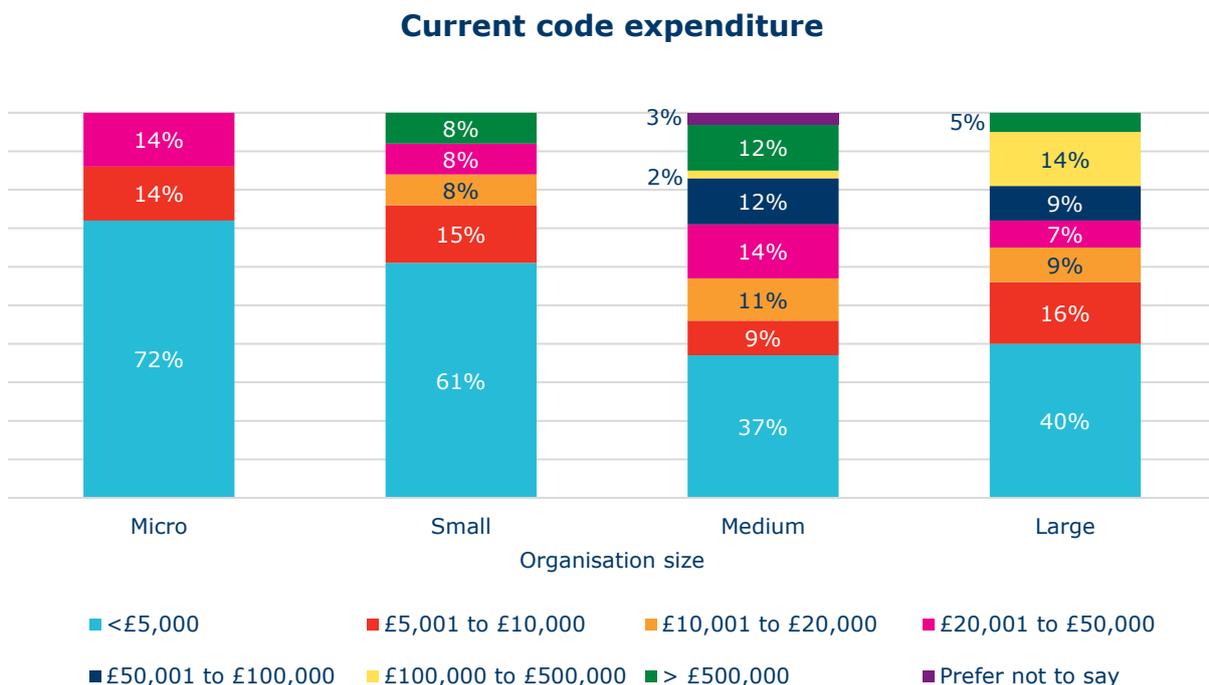
Current code expenditure

Figure 4: Responses by organisation size to "How much your organisation has spent on making changes?" (base: 156 respondents who envisage incurring financial costs in the future)

Whilst current code-related expenditure is relatively minor for many organisations, **a small but significant proportion of organisations – of a range of sizes – report substantial costs**.

Figure 5 breaks down the nature of code-related costs and highlights sectors where these costs are particularly likely. **Overall, the nature of costs vary in many places across sectors**. This is to be expected to a degree, given the scope, purpose and design of online services vary significantly across them. Notably, however, there are no significant variations in organisations who incurred costs from business model changes between sectors. This suggests that

the code does not have disproportionate sectoral impacts on current business models.[4]

Respondents see many opportunities for the ICO to support them to address code-related challenges and to reach conformance. Respondents cited the most useful forms of support as:

- more published guidance (53%);
- templates and exemplars such as data protection impact assessments (50%); and
- further information on ICO's approach to regulatory action (36%).

Code-related cost	% that incurred costs*	Sectors where cost is more likely
Training and development	60%	None
Staff time assessing code implications	55%	None
Developing internal data processes and plans	48%	News websites or subscription services (70%) Connected toys and devices (64%) Health and fitness services (62%) Online messaging services (60%) Phones and communication devices (58%)
Third-party and consultancy costs	33%	Online gaming (40%)
Reviewing data-related risks to children	29%	News websites or subscription services (46%) Connected toys and devices (44%) Health and fitness services (42%) Phones and communication devices (40%)
Redrafting privacy information and policies	24%	News websites or subscription services (41%) Online messaging services (40%) Live events and ticketing (37%) Health and fitness services (36%)

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[4] It should be noted that the relatively small number of respondents (30) reporting such costs means it is difficult for minor differences in a statistically-significant way.

Reviewing data protection impact assessments	24%	Health and fitness services (40%) Connected toys and devices (36%) News websites or subscription services (35%) Phones and communication devices (33%)
Redesigning services	22%	News websites or subscription services (39%) Online messaging services (36%)
Business model changes	19%	None

Next steps and areas of future focus

The ICO is focused on supporting organisations to address code-related challenges, and to realise the opportunities it presents. It is promising that this research finds organisations are making changes, and that the vast majority believe they would be in conformance by September 2021. However, we also note that levels of understanding of the detail are not always as high as this confidence would suggest. There continues to be a role for the ICO to engage with organisations to support them to understand and comply with the requirements of the code. Throughout the remainder of the code transition period, we are addressing the themes this report raises by:

- continuing to raise awareness and build understanding through industry-facing communications campaigns and engagements. This work pays particular attention to addressing common misconceptions and reaching small and micro-sized organisations, who are less likely to have a detailed understanding of the code;

- developing guidance that meets the needs raised by this research, including sample data protection impact assessments, risk assessment guidance and tailored guidance for those who are less likely to report a detailed understanding of the code. Design-orientated guidance would focus on translating the code into design guidelines and developing supportive artefacts for this community;

- continuing to work with government, and regulators in the Digital Regulation Co-operation Forum, to ensure our work on the code aligns with wider developments in commercial and digital regulation. This joined-up approach supports organisations to navigate the broad external challenges outlined in section four of this report; and

- continuing targeted engagements with key code sectors to understand challenges, costs and opportunities associated with the code.

We are carrying out a second follow-up survey at the end of the code transition period, across August and September 2021. This survey aims to track changes across the questions and topics explored in the initial survey outlined in this report. We are going to analyse these quantitative surveys, alongside a series of 15 accompanying qualitative interviews, and present a final review of ISS' status in relation to the code in the autumn of 2021. Beyond this research, the ICO Children's Code team are continuing to develop guidance and resources to support organisations to conform with the code, which you can access at ico.org.uk/childrenscode. To discuss this research, or any other queries concerning the code, please email childrenscode@ico.org.uk.

Appendix A: Aims, methodology and sample criteria

In November 2020 the ICO commissioned IFF Research, following a public tender process, to deliver a programme of research to deliver on the following aims:

1. To benchmark and track information society services' (ISS) understanding of, and views relating to, the Children's Code.

2. To evaluate the effectiveness of the ICO's programmes to support ISS providers to conform with the code and identify priority areas for further support following the transition period.

The research and data within this report derives from a mixed methodology quantitative survey with 511 respondents, completed through a mix of 161 telephone and 350 online interviews. We sourced participants from IFF's online panel (320 participants), Market Location (132)[5], the ICO registration fee payers database (50), and trade membership body contacts (9). The overall sample representing organisations can be broken down along the following criteria:

Organisation size:

Micro (zero-nine employees): 174 respondents (34% of overall sample)

Small (10-49 employees): 66 (13%)

Medium (50-249 employees): 167 (37%)

Large (250+ employees): 99 (17%)

Products or services:

Products: 169 (33%)

Services: 109 (21%)

Products and services: 231 (45%)

Revenue model:

Direct payment or customer subscription: 329 (64%)

Generating money from user data: 13 (3%)

Direct payment & generating money from user data: 156 (31%)

Do not generate revenue: 13 (3%)

Products sold:

Games devices: 154 (30%)

Educational products: 194 (38%)

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[5] www.marketlocation.co.uk

Magazines, books and media: 150 (29%)

Live events and sports tickets: 64 (13%)

Computer software: 113 (22%)

Phones and communications devices: 94 (18%)

Food and consumer goods: 112 (22%)

Health and fitness services: 73 (14%)

Services provided:

Online marketplace for third party goods or services: 141 (28%)

Online gaming or streaming: 119 (23%)

Music and video streaming: 101 (20%)

Social media services: 117 (23%)

Online messaging or voice telephony: 84 (16%)

News or education websites or subscriptions: 129 (25%)

Electronic services controlling connected toys or devices: 60 (12%)

Public policy: 39 (8%)

Legal: 30 (6%)

Respondent role:

Managing director, CEO or owner: 212 (41%)

Financial director: 34 (7%)

IT director or manager: 99 (19%)

Information security, compliance or data protection officer: 56 (11%)

Public policy: 14 (3%)

Legal: 7 (1%)

Engineering or product development: 14 (3%)

Appendix B: Research script

We used the following survey script for this research:

A1   How familiar are you with the Information Commissioners Office, also known as the ICO?

A2   Have you heard of the Children's Code? This is also sometimes referred to as the Children's Code.

A3   Are you aware that the Information Commissioners Office has recently launched a new code that sets out a number of standards to ensure that their services appropriately safeguard children's personal data and process children's data fairly?

A4   Do you think that your organisation will have to conform with the Children's Code?

A5   Where did you first hear about the Children's Code?

A6   To what extent do you agree or disagree with the following statements…? (understanding of code theory/code practical requirements)

A7   Which of the following do you think are features of the Children's Code?

A8   Which of the following do you think are standards that are part of the Children's Code?

A9   We'd now like to give you a brief summary of what the Children's Code is…Based on what you have just read, do you think your organisation will need to conform with the Children's Code?

A10 Why do you think that your business will not need to conform with the code?

B1   We fully recognise that there is currently a wide range of external developments facing organisations, that they need respond to. From the following list, which would you say are your organisations top 3 priorities?

B2   Based on what you now know about the Children's code, to what extent do you think your organisation currently conforms with the standards in the code?

B3   Have you made any changes to your practices relating to using children under 18's data, in response to the Children's Code?

B4   Do you plan to make changes to your online privacy protections for children under 18, in order to fully conform with the Children's code?

B5   [if no plans to conform] Why do you say that?

C1   Do you envisage your organisation will need to make any changes in order to conform with Children's code?

C2   Do you envisage your organisation will need to make any changes in data handling processes in order to conform with the Children's code?

C3   Has your organisation incurred any financial costs to date, as a result of the Children's code?

C4   What have these costs related to?

C5   Are you able to provide an estimate, in pounds sterling, and including staff time, of how much your organisation has spent so far on making changes in relation to the code of Age Appropriate Design?

C7   Do you envisage that your organisation will incur costs *in the future* as a result of the Children's code?

C8   What do you envisage these costs will relate to?

C9   Are you able to provide an estimate, in pounds sterling and including staff time, of how much you envisage spending on making changes in relation to the code of Age Appropriate Design?

C10 Are you able to provide an estimate using the ranges below?

C11 Do you foresee any barriers in relation to conforming with the Children's code?

C12 What are these barriers?

C13 Do you envisage any opportunities for your organisation as a result of implementing the Children's code?

C14 What opportunities do you envisage?

D1   Have you or anyone in your organisation attended any of the following to find about more about the Children's code?

D2   Have you used any of the following resources for guidance in relation to providing online privacy protection and designing responsible services for children?

D3   Where would you look for guidance on improving online privacy and responsible service design for children?

D4   What type of support would be most helpful in helping you to conform with the Children's code?