

# Public perceptions of the BBC data uses in experiments which give people more control of data

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#### 1. INTRODUCTION

Living With Data is a research project funded by The Nuffield Foundation, which aims to understand people's perceptions of how data about them is collected, analysed, shared and used, and how these processes could be improved. We use the term 'data uses' as a short and accessible way of talking to people about these processes. The data at the centre of such processes is often personal data, defined as data 'related to an identified or identifiable person' by the General Data Protection Regulation (or GDPR, European Union regulation about data usage and rights).

On Living With Data, we produced accounts and visualisations of specific 'data uses' which we presented to and discussed with research participants in surveys ( $n = 2000 \times 2$ ), and in focus groups and interviews (n = 112).

We selected cases from public sector organisations because their data systems increasingly shape everyday life experiences, and yet they had received less attention than high profile commercial systems at the time of our research. We identified welfare, public service media and health as three domains on which to focus our research because they are core aspects of everyday life.

This document summarises what we found about people's perceptions of uses of data in experiments by the BBC which aimed to give people more control over their personal data. An overarching project report and reports on other sectors can be found in the Resources section of the Living With Data website, along with other publications from the project.

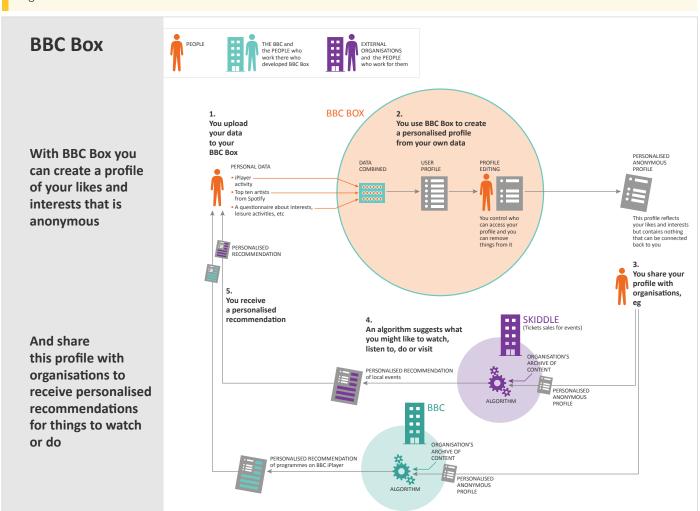
#### 2. CASE STUDIES OF DATA USES AT THE BBC

To produce accounts of uses of data in public service media, we partnered with the BBC. Example data uses were selected by our BBC contacts, and accounts were produced iteratively with partners. The examples that were chosen were experiments which aimed to give users more control over their personal data in the form of 'personal data stores,' or PDSs. In a PDS, people can edit or add to stored data, and they can choose whether to share their data with an organisation like the BBC in exchange for recommendations, for example of programmes to watch or listen to. The first example, BBC Box, was a prototype which pulls together data about what users watch or listen to and gives them control over who has access to this data. The second, BBC Own It, was a free app designed to support, help and advise children when they used their phones to chat and explore the online world, without adult supervision.

Alongside other general questions, we presented a textual description of these two data uses to 1/3 of our survey respondents; the other 2/3 saw other public sector data uses.

As the survey was completed by 2000 respondents on the two occasions we administered it, this means around 1300 of them answered questions about BBC data uses. We ran the survey twice to explore change over time, and specifically to investigate whether the different phases of the Covid-19 pandemic affected attitudes to data uses. In response to the vast majority of questions that we asked, we found no statistically significant difference between figures from the first and second waves of the survey. Therefore, in this report, estimates of the proportions of people holding particular opinions refer to the 2020 survey. Where we did find differences between 2020 and 2021, we highlight these.

We presented visualisations and verbal descriptions of BBC data uses to participants in our focus groups and interviews, which ran from November 2020 to September 2021. Figure 1 shows small versions of the visualisations we shared with focus group and interview participants. Full-size visualisations of data uses can also be found on the Data Uses page of our website. Descriptions can be found later in this report.



#### **BBC Own It** Children receive real-time, well-being advice and content app for children recommendations and no identifiable data leaves their phones CHILD'S MOBILE PHONE A child The app can see what the child An algorithm assesses this data, The app stores a record The BBC The BBC downloads and collects and uses sometimes starts using the does on their sends alerts or of alerts and anonymous data shares data BBC Own It recommendations, phone through makes content to improve the app with university app. The Own It keyboard the keyboard recommendations and analyses researchers to and then discards these to continue help it evaluate IT GATHERS DATA ABOUT THINGS LIKE APP UPDATES becomes the the data recommending products like appropriate Own It keyboard for all their mobile content phone use OWN IT KEYBOARD DATA STORED OVER TIME ALGORITHM 🌣 The child can opt out of sharing their anonymous data RECOMMENDATION

For the interviews and focus groups, we grouped our example data uses into four themes: Data Matching; Data Ownership and Control; Data Sharing and Reuse; Algorithmic Processing. We discussed one theme in each focus group or interview, which means that each theme was discussed by approximately 1/4 of our participants. The themes that included public service media data uses were:

- this theme focused on who owns and controls data about us. The Data Ownership and Control theme included both BBC data uses, BBC Box and BBC Own It, and the NHS Covid-19 Data Store.
- Data Sharing and Re-use: this theme focused on instances where data collected by one organisation is then shared with another organisation. The Data Sharing and Re-use theme included the two NHS data uses, the NHS antibiotic prescribing project and the NHS Covid-19 Data Store, and BBC Own It.
- Algorithmic Processing: this
   theme focused on analytic
   processes where machines
   make predictions which can
   lead to recommendations
   to human operators or
   automated decisions. It
   included the two BBC data
   uses, BBC Box and BBC Own It,
   and DWP Dynamic Trust Hub.

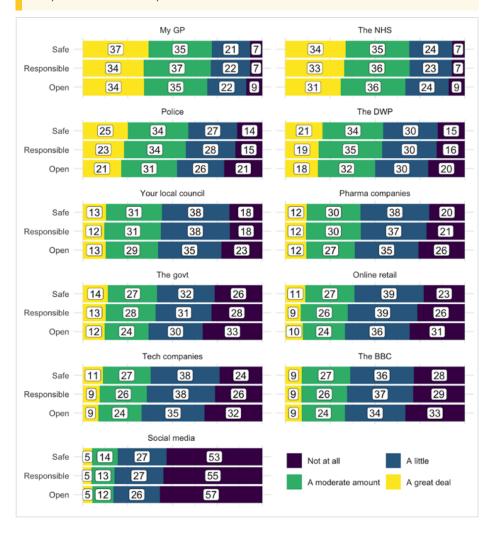
Visualisations of these themes can be found on the <u>Producing</u> <u>accounts of data uses</u> page of our website.

# 3. PUBLIC PERCEPTIONS OF BBC DATA USES: WHAT WE FOUND

#### 3.1. Trust in the BBC

We asked survey respondents about their trust in different sectors and institutions, including the BBC, to: a) keep their data safe, b) gather and analyse data about them in responsible ways, and c) be open and transparent about what they do with data. We did this in order to gauge whether trust varies across institutions or across data processes. In other words, we explored whether trust in organisations and sectors in general influences attitudes to those same organisations' or sectors' specific data processes. Overall responses can be seen in Figure 3.

Figure 3: How much do you trust <organisation> to: keep data about you safe?; gather and analyse data about you in responsible ways?; be open and transparent about what they do with data about you?



As can be seen, levels of trust were consistent across the three data uses that we asked about (keeping data safe, gathering and analysing data in responsible ways, and being open and transparent about what is done with data) across all sectors and institutions. This consistency in degrees of trust across the three data processes suggests that respondents' trust in sectors or institutions influences their trust in the same sectors' or institutions' data processes. In other words, sectoral or organisational context is an important factor when it comes to attitudes to data uses.

We found relatively low levels of trust in the BBC across the two waves on the survey. In both 2020 and 2021, the BBC was ranked 10th out of the 11 organisations and sectors that we presented. It should be noted that 'a little' trust was a more common answer than not trusting 'at all'.

In free text fields in the survey that explored attitudes to specific public sector data uses, lack of trust in the specific organisation overseeing the data use was more frequently expressed in relation to the BBC than the NHS and DWP, the two other public sector organisations in our study. When asked whether they would use BBC Box, for example, respondents made comments such as 'I don't trust the BBC' or 'I don't trust the BBC to keep my data safe'. Often these statements were unaccompanied by further explanation.

However, some comments included detail linking the lack of trust to the perception that the BBC are connected to the government, to the BBC 'wasting taxpayers money' and not being open with the public, and to past behaviours related to the handling of the TV licence.

These survey findings were not replicated in the focus groups and interviews. In contrast, in our qualitative research, a number of participants expressed trust in the BBC and identified different reasons for their feelings of trust. Some trusted the BBC because of its historical reputation as a 'trustworthy', 'upright' and 'reliable' organisation.

For others, the fact that the BBC is publicly owned, linked to the state by its funding and regulated by a charter made it more trustworthy than a commercial or privately-owned company which may not be governed as rigorously.

At the same time, a small number of participants noted that it was becoming less clear whether the BBC was a public or a private corporation.

For others still, it was the fact that the BBC is a media organisation which, at worst, might share data across different elements of the BBC, that made them trust it. For example, Ross, a white, British, heterosexual man, aged 25-34, with an annual household income £100,000+, said:



I kind of associate the BBC with providing me with entertainment and the news [...] I think like if it was, "Oh, we're going to send it to BBC Three, like the different radio stations, and they might send you some information", you'd be like, "Okay, yeah, I'm fine with that." [...] With the BBC you would hope there would be some sort of level of reputation. They've got their own reputation to uphold, if that makes sense. You just assume that they have some sort of management team in place that would scrutinise these companies and what they're doing with the data to make sure. So, I guess there is that trust with the BBC. Ross

# 3.2. BBC data uses are fair because there's a choice, but purpose is unclear

A defining characteristic of fairness for some of our focus group and interview participants was having a choice, about sharing data once it's understood how it will be used and about what happens to data once it has been shared.

Participants felt that engaging with these public service media data uses was a choice: people could opt to use these systems, or not. Participants felt that there was less choice about whether to engage with the welfare examples, because the welfare is essential to many people. Because of this, many participants felt that the BBC data uses were fairer than the welfare examples.

For example, Kahina, a black, heterosexual woman, aged 25-34, with an annual household income of £30,000-£39,000, compared the two BBC data uses with a welfare example:



at least with the BBC [Box], you've sort of got a bit of a choice [...], or with the second example [Own it], the child has to download the app in order to use it. So, in a way, you've got some sort of a choice to say, "No, actually, I don't want to participate in this," or, "I don't want to take part." Whereas the [welfare] one, you don't really have a choice, so I would say that was really unfair compared to the other two examples that you've given us. *Kahina* 

Despite this, the purpose of BBC Box appeared difficult for some participants to understand.

Although we discussed both BBC Box and BBC Own It in focus groups and interviews, most discussion focused on BBC Own It.

This may be because participants struggled to relate to or understand the purpose of BBC Box. In the section of the survey about specific public sector data uses, respondents answered a question about how likely they would be to use BBC Box if it became available, having read the description reproduced in Figure 5.

Just 4% of people said they definitely would use BBC Box in each mode. Responses in free text fields suggest that this is because of: a) a lack of interest in it; b) low levels of trust in the BBC; and c) finding it hard to understand the need for it / wanting more information about what the BBC Box does. Lack of interest was cited in 16% of free text comments about BBC Box, compared with much lower numbers of 2% and 3% for health and welfare data uses.

Lack of organisational trust was also mentioned more frequently in relation to BBC Box than in relation to the other data uses examined. This confirms the findings summarised in Figure 4 above: that trust in the BBC was relatively low, compared to other sectors and organisations, and that this has consequences for trust in data systems.

There were some differences between groups with respect to attitudes to data uses. Older people, people with lower qualifications, White people, and men were least likely to use BBC Box, whereas younger people were much more positive about using it.

Although small numbers of younger respondents said that they would definitely use BBC Box, consistent with all respondents, there were pronounced

#### **BBC Box**

BBC Box pulls together data about what you watch or listen to (for example on the BBC or Spotify) in one single place.

BBC Box then creates a user profile identifying your likes and interests, based on this data and quizzes that you have completed. You have the power to edit your profile. This data and your profile are stored securely in your personal data store. You can then choose to share your edited user profile with the BBC or other services. If you share your profile, you will receive recommendations, not only about what you might like to watch or listen to, but also about things to do and places to visit.

In its initial version, the BBC Box was a physical object. Data was kept on the physical device and your user profile was created there. In its second version, the BBC Box is cloud-based – that is, data is stored and your user profile is created securely online. BBC Box is accessed via an app on a user's device. To get recommendations – for example of TV programmes to watch, concerts you might want to go to, or holiday destinations – you would need to share your user profile with the BBC or another organisation. BBC Box is in testing, not currently available for use.

differences in those who said they definitely would not use it, which increase with age.

There were also differences by qualifications. Although the most common response for all groups is 'I definitely would not use it', people with higher qualifications were more positive about BBC Box.

In terms of ethnicity, White people had more negative responses to BBC Box than Black, Asian and other racialised people: 27% of the former group would definitely not use it, compared to 20% of the latter. Finally, there were some small differences by gender, with women having slightly more positive attitudes towards BBC Box (20% definitely would not use it) than men (29%).

#### 3.3. Concerns about data sharing

For BBC Own It, survey respondents were asked to respond to a series of statements which explained the various steps and processes involved, reproduced in Figure 6 below. Responses were recorded on a slider, where at one end the option was 'Not at all comfortable' and at the other end 'Very comfortable'. The distribution of responses to these statements is shown in Figure 7.

Most respondents were fairly or very comfortable with the data uses described. Respondents were least comfortable with anonymous data about Own It users being collected by the BBC, which hints at a concern about what might happen to this gathered data which we identified elsewhere in our research.

Following these questions, respondents were informed that the BBC often collaborates with university researchers, sharing anonymous data with them to help evaluate and develop products like Own It.

Respondents were told that the BBC is considering making more detailed Own It data available so researchers can better understand children's mental health. They were asked what data, in their opinion, should be shared. No sharing of data was most popular (43% of respondents chose this option) and sharing anonymised, individual level data was the least popular (8%). The options and results are presented in Figure 8.

In response to the question about preferred data sharing models for Own It data, there were some differences across groups. Younger people were more comfortable with group-level and anonymised sharing. 36% and 38% of the age groups 18-24 and 35-44 respectively stated they were most comfortable with no sharing, compared to 52% of the oldest group. White people were also more likely to feel most comfortable with no sharing, with 46% of White people choosing this option compared with 34% of Black, Asian and other racialised people.

People with fewer qualifications were likely to feel most comfortable with no sharing; the group that most preferred no sharing was the group with vocational qualifications.

Free text field comments about BBC Own It expressed concern about data sharing. The majority identified the lack of parental involvement or data sharing with parents as an issue, something that also came up in our focus groups and interviews. As the above description of Own It indicates, data from the app stays on the phone, except anonymised and aggregated data, which is shared with the BBC to enable it to improve the app. This means that if a child's activity on their phone results in alerts or content recommendations, for example because the child appears to be sharing private information or engaging in bullying, parents and carers are not informed.

A small number of focus group and interview participants were concerned about this and felt that more data sharing would be desirable. Talking about BBC Own It, Diane, a white British, heterosexual woman, aged 55-64, who has a household income of £40,000-£49,000, imagined a child looking up how to make a bomb.

Diane wondered what would happen to this data beyond sending an alert to the child themselves. In this instance, she felt it might be necessary to alert more people than the child themselves.

Figure 6: description of the BBC Own it data use from the survey

#### **BBC Own It**

- A child has the Own It app installed on her phone. She
  is about to send her phone number to a contact on a
  social media platform popular with children. Own It
  intervenes and says 'are you sure you want to send your
  phone number?'
- 2. A child is typing a message to a friend and receives an alert from Own It asking him whether he is sure he wants to send the message. This is because the Own It app has scanned the text of the message and identified words which suggest the child might be bullying his friend.
- 3. After Own It sends this alert, it recommends that the child watches a video about how bullying affects people.
- 4. Using Own It produces data about: how much time a child has spent on their phone, how the phone is used, pages visited, how the child feels (gathered from quizzes

- and questionnaires within the app), 'in-the-moment support', the child's feedback on the usefulness of that support. The BBC will not see any data connected to an individual child, and all identifiable data stays on the phone.
- 5. Anonymous data about Own It users is collected by the BBC. For example, 'the emotion anger was identified 250 times among all children', or '30 out of 200 children did not find this content recommendation useful'. This data is used by app developers to help them improve how the app works.
- 6. Users can turn this feature off at any point.
- 7. Information about anonymous data collection and the option to turn this feature off is communicated to Own It users and their parents. (This information can be found in Information for Parents section of the app.)

Figure 7: Survey responses to statements about BBC Own It

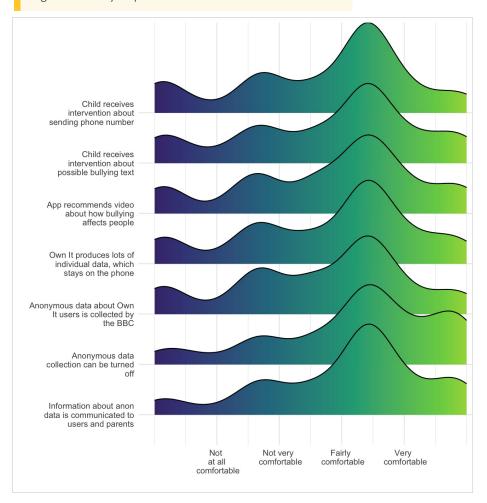
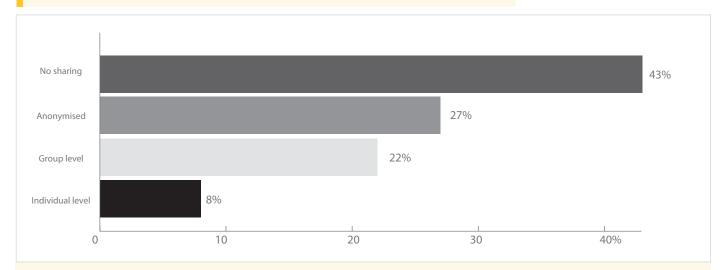


Figure 8: What Own It data, in your opinion, should be shared with university researchers?



- 1. No sharing of any data what's on the app stays securely on the mobile device (43% of respondents chose this option)
- 2. Sharing anonymised data (for example, 'on a given day, the average user spent one hour on the app', or 'there were 150 reports of children using the app reporting feeling angry' (27%)
- 3. Sharing anonymised, group level data (for example, 'of all children who completed a personality quiz and were categorised as having a particular personality, 20% reported often feeling angry') (22%)
- 4. Sharing anonymised, individual level data (for example, 'userID1234 reported feeling angry four times this week, gave these answers to a personality quiz and watched this video') (8%).

## 3.4. Unequal access to Own It, but it could help to overcome inequalities

Some focus group and interview participants were concerned about whether data-driven systems like BBC Own It could reinforce or deepen inequalities, without explicitly using this term. This was the case with most public sector data uses we discussed with them, not just the BBC examples. The welfare examples were seen to be most concerning in this regard, but BBC Own It also raised concerns. For example Teddy, a white British, heterosexual man, aged 65+, who was retired with an annual household income of £50,000-£69,000, was concerned about people's ability to access Own It. In response to the question 'are any of the data uses we have talked about fair?', Teddy noted:



The benefit of the BBC's Own It in telling me what to do if I'm bullied is only available to people who have phones. So kids who don't have phones are disadvantaged. *Teddy* 

Tahira, a Pakistani, heterosexual women, aged 45-54, who had an annual household income of £50,000-£69,000, expressed mixed feelings about the ways in which data-driven applications like Own It intersect with inequalities. On the one hand, she was concerned about the effects that socioeconomic inequalities have on parents' ability to engage with their children about their mobile phone and app usage. She felt that not all parents are equally able to support their children's mobile phone use, precisely because of these inequalities. She said:



One family member I know, like family friend kind of thing, she's on it. She will check the kids' phone, she will — you know, she is like really — without being too aggressive, she knows how to manage that. Whereas other parents are working three jobs, they haven't got the time or the, you know, know-how of what to check. Even if they were to ask that child, 'Oh, what are you doing?' They'd say, 'Oh, yeah, I'm just doing this'. And they're like, 'Alright'. *Tahira* 

At the same time, Tahira felt that Own It could provide access to resources to people who otherwise might not be aware of them. She felt this made it a fair data system, because it addressed inequality in access to information and resources:



A lot of people I know wouldn't normally have access to that kind of resource. The parents at home [in the UK, who come from Pakistan] wouldn't know where to reach out to, because they've not been educated in this country, for example. or just don't know. [...] So, for me that's the fair one, if I was to look at it from that lens. *Tahira* 

### 3.5. Concern about algorithmic processing on Own It

Some focus group and interview participants were concerned that algorithmic systems and processes are not guaranteed to be error-free. Errors might lead to mistakes in how systems work, and such mistakes may have consequences. Talking about BBC Own It, Jill, a white British heterosexual woman, aged 45-54, who has an annual household income of £50,000-£69,000, was concerned that it might erroneously send alerts to children which suggested they had been involved in bullying when they had not:



Coming back to the thing we said about the algorithm and the fact that it's not human controlled and it could make mistakes. And you could have a child who's perfectly happy who suddenly gets an alert about bullying, and then freaks out and thinks that something's wrong and they've done something wrong. Jill

Algorithmic systems might misinterpret user activity, some participants noted. Jill pointed out that certain words can take on alternative meanings when used by young people, citing the example of 'bad' being used to mean 'good'. Language is dynamic, and changes to language use after a system has been built might mean the system is not equipped to adapt to 'changing language, changing trends, changing behaviours' as Jill put it.

She continued 'I guess they would keep modifying it, but it's only ever as good as what it's been told to be'. Lewis, a white, heterosexual man who was born in the UK, aged 55-64, in work, with an annual household income of £50,000-£60,000, wondered whether BBC Own It was able to differentiate between the types of context in which it was used.

He was concerned about the specific things that young people might say to each other whilst playing a game and how this might lead to the app sending inappropriate alerts:

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I don't know if kids even play this sort of thing, I'm so out of touch, but let's say they're playing a kind of Dungeons and Dragons text-based game or something, it probably shows my age, but they're typing in some command, it's like "Kill, him, kill him," but – [...] I'm just wondering about that kind of context awareness, whether [the Own It app] can differentiate between the context of issuing one sentence here as against issuing it in a different platform when you are engaging with some social media thing with somebody, or whatever. *Lewis* 

In these quotes, Jill and Lewis expressed concern about the fact that algorithmic systems involve interpretations, and interpretations can be inaccurate.

Ellis, who is white, British, non-binary and bisexual, aged 25-34, with an annual household income of £30,000-39,000 and no long-term conditions, was also concerned that within Own It, what is considered to be risky behaviour, or requires an alert or flagging, depends on interpretation.

They suggested that the broader socio-political context within which Own It content flagging takes place influences interpretations, and they were concerned about this. For example, they said that a child interested in climate change and searching for environmental campaigning organisation Greenpeace might be considered to be interested in terrorism, because at the time of the discussion, Greenpeace was included on a counter-terrorism list, alongside neo-Nazi and other extremist groups.

They compared this current concern with a potential future scenario in which LGBTQ+ identity is challenged or denied, and thus searching for related content could also be flagged as risky or problematic:



I know the BBC are apolitical, I'd be concerned of what the BBC are going to be flagging up as a problem, and that depends on what society is. I guess what the BBC sees as a problem could change depending on political pressure and things. You get it in some countries where obviously like LGBT content is not allowed, and that is probably a while off from happening in the UK, but if a child was looking at certain types of political stuff, would that just be flagged based on the fact it's not, you know, when all those organisations got put on the like terrorism list, that were just like Greenpeace and stuff. I'd just be a bit concerned about who's making the decisions of what's okay and what's not. Ellis

Ellis expressed concern about the ways in which interpretations might be biased against some activities, because of what is deemed acceptable, or what is legal, in a given society. They were also aware that interpretations and recommendations are informed by data about previous activities — not just on Own It, but on data-driven media more generally. Referring to their own LGBTQ+ identity and the adverts that they see, Ellis said:



I watch a lot of Gogglebox because it's great, and I always get, like, the car advert at the beginning, I always get the LGBT version of it, and I'm like, oh yeah, that's really good, but then I remember that actually probably I'm only being shown that because I fit the demographic. Whereas I always think oh it'd be good, because I'm thinking oh everyone's seeing this so it's good for like representation, but actually not everyone is going to be showing that advert I don't think, and if you're only going to be recommended things that are in your sphere then that's not really very good, I don't think. Ellis

Ellis echoed commentators who believe that recommender systems based on an individual's media consumption habits may have troubling consequences for democracy, because they push people into echo chambers which reinforce their existing views and limit healthy debate. So did Tahira, mentioned above. Talking about BBC Box, Tahira noted that everyday media consumption produces data which is fed back to platforms and organisations, which in turn recommend content based on what they perceive to be users' preferences.

Giving the example of music listening, she said 'by listening to your regular stuff on Spotify you're telling them anyway [about your preferences]'. She expressed concern about people being recommended media content that reinforces existing, racist ideologies through such mechanisms which can 'add to [...] the racism.' Recommendations based on consumption habits means that audiences:



are not going to get like the other side [or other points of view] because this'll just constantly pump and drip feed them more. So I know that sounds kind of harsh. But unfortunately that's where my brain goes when it comes to these kind of algorithms about biases behind them. *Tahira* 

Tahira linked particular kinds of data uses to the political environment, seeing them as actors in the reproduction of harmful norms, and she was not the only participant to do this. This example shows that Tahira understood that data plays a political role, reproducing inequalities, revealing a sophisticated awareness of the politics of data practices and data processes.

# 3.6. Concern about potential disparity between data uses in theory and in practice

Across all of the data uses that we discussed, a number of participants were concerned that how they are said to work in theory or 'on paper' would not be how they actually work in practice. Data could be used for reasons not foreseen, intended or described at the time that data uses are implemented or in planning.

For example, Louisa, a white, heterosexual British woman, aged 35-44, who has an annual household income of £40,000-£49,000, and Jill, mentioned above, had the following conversation about the BBC Own It app:



What if the research done though, produced by the university, by lovely people like [the researcher], was used by people for the very opposite of what it was originally designed for, to target specific children because they know from this research? *Louisa* 



But they can't target specific children. Jill



No, but they've got the data, so it will still have children generally [...] and then they might be able to target in in different ways. Because they'll have data, won't they, like, "These children, nine year old girls, are interested in horses and watch really annoying American thingamajigs." It will make all of the links. Even though my daughter would be anonymised, it still makes all the links and will specify those groups, and can pick out trends or stuff. Louisa

Louisa imagined a scenario in which data is used in ways not foreseen. Lewis, mentioned earlier, imagined potential security breaches with BBC Own It. For him, this created a disparity between the aim of Own It – that is, to protect children's mental health, which 'on the face of it sounds great' – and its real-world security. He said:

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You know, you could imagine if there was a way for somebody to hijack it then it would be an absolute nightmare in terms of, you know, it's now capturing all of the keystrokes from somebody, and in this case it's a kid so it's unlikely to be, you know, military secrets or whatever but it's still that kid's kind of personal life that they are capturing in some way. So yeah, so I think – so this one on the face of it sounds great, but you'd really want to know a little bit – well, quite a bit more actually about that. Lewis

Other participants speculated that the BBC data uses we discussed with them might result in less control over personal data, not greater control as promised 'on paper'. With regard to users aggregating their own data on BBC Box, Castor, a Greek man, aged 35-44, with an annual household income £10,000-£19,999, said:



To keep all these accounts I have, and data, fragmented data, to integrate them, what will happen if I share this profile with other accounts? In the worst imagination, it's like feeding a monster that is always hungry, and we feed it with data, with data, with data, which is how we ended up creating monsters like Google, or Facebook. *Castor* 

Billie, a white British, non-binary, queer participant, who had an annual household income of £10,000-£19,000, was initially concerned about BBC Own It, because it is targeted at children, and because they had recently watched a programme about the problems with YouTube algorithms. However, their feelings about Own It changed during the course of their interview. After considering some of the details, Billie said they 'like the fact that the keyboard allows a lot of control' because they 'very much like the idea of children having autonomy of themselves'. They continued:



I feel like this could be very, very positive for children, especially if it's got things like wellbeing advice on how to manage your mental health and you know, reminding kids to take breaks from their phones and their tech, all technology, their consoles and anything like their laptops and stuff. You know, go outside recommendations and like that, trying to push kids to doing more like a variety of stuff. *Billie* 

Billie then worried about a potential disparity between the theory and practice of Own It, noting that the 'execution' of the BBC Own It application is what really matters. The Own It algorithm, they said, needed to be 'watertight', children need to be able to switch off the app when they want to, and any sharing of Own It data with university researchers needed to be transparent, including who is funding the research.

#### 4. CONCLUSIONS

We found comparatively low levels of trust in BBC data uses in both rounds of the survey. This was not replicated in focus groups and interviews, where such distrust was generally not expressed. In the focus groups and interviews, BBC data uses were seen to be fair because they involve choice: people can choose whether to not to engage in them. However, the purpose or need for BBC Box was not clear to some survey respondents, leading them to be unlikely to use it. BBC data uses were seen to be less concerning than other public sector data uses that we discussed in our research which don't appear to be optional. However, participants identified a number of concerns. There was some concern about Own It, because it was targeted at children but didn't involve parents or carers. There was concern that unequal access to apps like Own It could reinforce inequalities. At the same time, there was also acknowledgement that Own It could overcome inequalities, providing access to resources that some groups may otherwise find it difficult to identify. There was also concern about algorithmic processing on Own It. Some participants appeared to be aware that algorithmic processing involves interpretation, and that interpretation could lead to errors, biases or the reproduction of echo chambers. Finally, there was some concern about the potential disparity between how data uses work in theory and how they work in practice, because data could be used for reasons not foreseen, intended, or systems may be less secure than expected.

#### To address these issues

Public service media providers like the BBC need to ensure that they communicate clearly about data uses. Explanations need to focus on what matters to people, for example, addressing what might go wrong and possible future as well as actual current uses of data. They could consider using visuals to communicate data uses: this simple step could significantly improve people's understanding of data uses. They could regularly consult with diverse members of the public about their planned data uses, for example ensuring that parents and carers are consulted when developing applications for children.





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