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Published online: 26 Nov 2024.

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Spotify (Un)wrapped: how ordinary users critically reflect on Spotify's datafication of the self within creative workshops

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ABSTRACT

Each year, Spotify nudges users to share aesthetically pleasing data stories 'wrapped' and repackaged from their listening behavior. This article approaches Spotify Wrapped as an annual algorithmic event, defined as a moment in time in which there is a collective orientation towards a particular algorithmic system and its associated data. It offers a methodological contribution to research on datafication of music taste and identities through the development of a workshop format aimed at ordinary Spotify users. The workshop delivers insights into practices of datafication and the normative assumptions baked into Spotify data stories. Drawing on a data feminist framework, we outline three inter-connected but distinct creative exercises, which take participants on an analytical journey. We combine feminist arts-based research methodologies with critical reflection and the walkthrough method to centre people's experiences and equip them to analyze different layers of Wrapped. Our theoretical and methodological approach seeks to desta-bilize the logics of data extraction that further Spotify's commercial aims and its associated claims of 'knowing us' through the aggregation of user data. As such, our workshop transforms the marketing campaign into a site for critical reflection on Wrapped as an algorithmic event.

Introduction

The end of November marks Spotify Wrapped season: the time of year when Spotify users confront a digest of their streaming habits from January to November. When users open the app in late November, they are invited to 'play' their Wrapped breakdown, presented through short, consecu-tive videos similar to the 'stories' format used by other platforms such as Instagram. The in-app experience is available for about one month, but a bespoke playlist with one's top 100 songs remains available as a time capsule. Although the format of these data stories changes in each iteration, the logic and purpose persist: inviting users to participate in an annual 'algorithmic event' by sharing personalized listening stats and comparing them to broader trends. We define an algorithmic event as a moment in time in which there is a collective orientation towards a particular algorithmic system and its associated data. Yet what the platform's claims of knowing 'you' mean to ordinary people is yet to be empirically explored. In this article, we outline a workshop method that enables research-ers, educators and students to examine how ordinary users engage with algorithmic events like Wrapped.

Spotify's wrap-ups began in 2013 under the name 'Year in Review', a webpage that unveiled individualized listening data to users (Alagiah, 2022). In 2016, it was rebranded as 'Spotify Wrapped'. The Wrapped email was opened by 30 million users, drove over 1 million streams on Spotify and featured in 1,548 pieces of media coverage. By 2022, Spotify displayed in their Q4 2022 update that the Wrapped campaign engaged 150 million monthly active users and grew 30% from 2021 across 111 markets (Spotify, 2023). Part of this popularity stems from the way Spotify adds new personalized and interactive features to these data stories every year. In 2021 users were presented with their 'Audio Aura', which captured the two top 'moods' and visualized them as a swirling gradient of color (Figure 1).

In 2022, Spotify replaced this with two new curated data stories: 'Your Listening Personality' and 'Your Audio Day' (Figure 2). That year also put motion design at the centre of the campaign. Upon clicking on the main Wrapped feature, vibrantly colored monograms in different shapes would overlap and interlock to help make the presentation of the stats more dynamic. The designers of the campaign explained how motion design gave each layer within a monogram a distinct sense of personality, behavior and 'motion language' which was supposed to signal how 'we're all unique' (Alagiah, 2022).

The social aspect is a core component of Wrapped as an algorithmic event and, therefore, key to our proposed method. The personalized data stories are designed to be shared and discussed on social media: Each card in the Wrapped story has a 'Share this story' button to facilitate this process, turning the phenomenon into an organic marketing engine for Spotify. The platform amplifies the significance of its aggregated metrics in outdoor ads, where global listening patterns surface through games like mazes, word searches, connect the dots and fill-in-the-blanks. By playfully connecting shared listening patterns to lifestyle, Spotify naturalizes the logic of extracting user data to make claims about society and identity. This strategy serves the economic project of surveillance capitalism, which 'unilaterally claims human experience as free raw material for transla-tion into behavioral data' (Zuboff, 2019, p. 8). Central to our method for critically engaging and analysing Wrapped is providing space for participants to expose and interrogate their relationship to these logics.
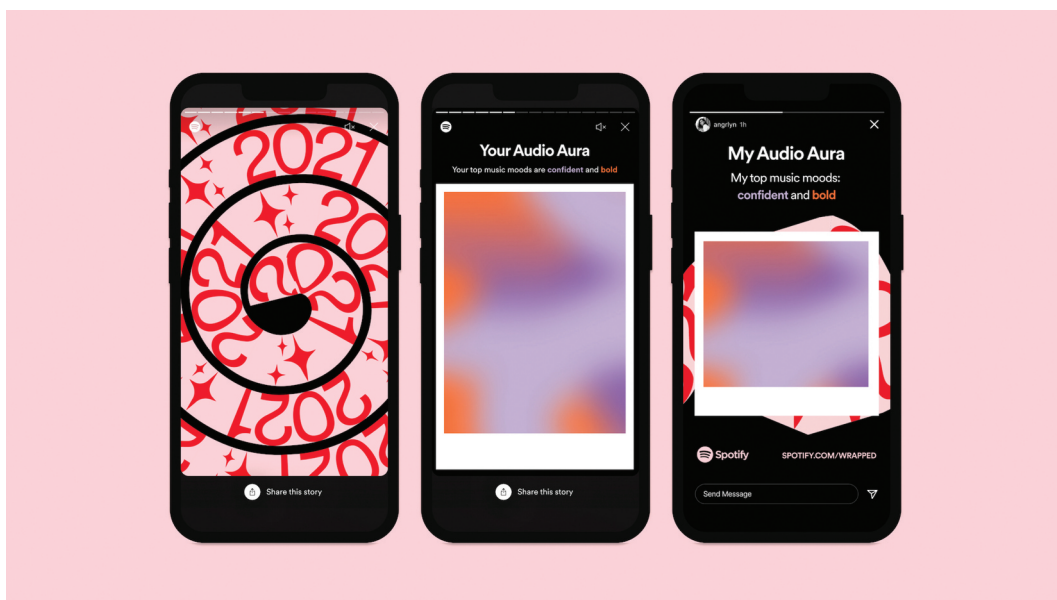

Figure 1. Screenshots of the Spotify Wrapped in-app experience in 2021 (Spotify, 2021).
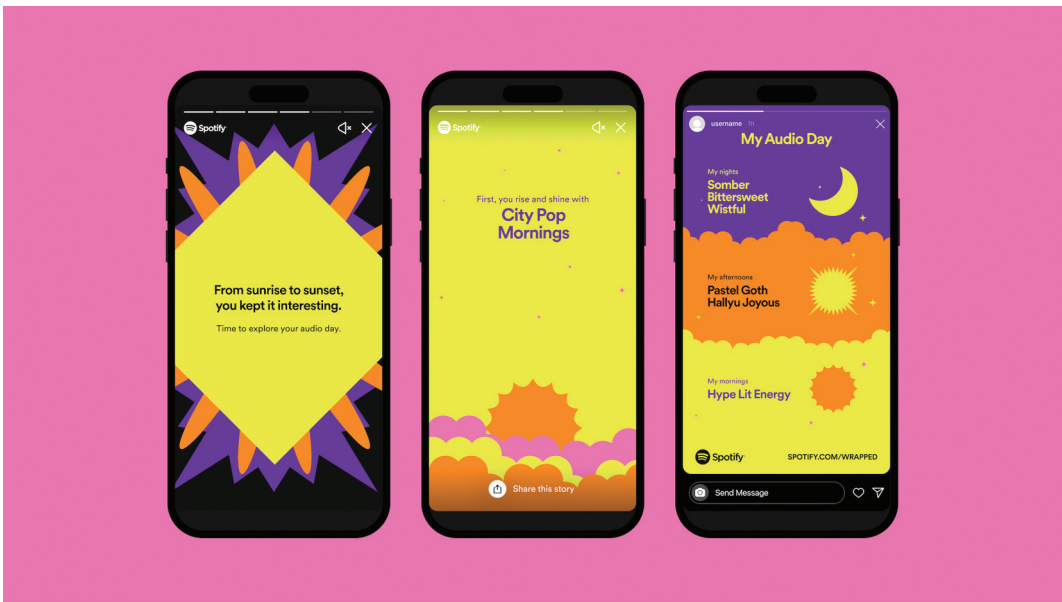
Figure 2. Screenshots of the Spotify Wrapped in-app experience in 2022 (Spotify, 2022).

Our proposed method enables workshop facilitators (who may be researchers or teachers) and participants to collaboratively interrogate Wrapped as an algorithmic event. We argue that a critical and arts-based approach significantly advances our understanding of the way algorithmic logics and social dynamics intersect during algorithmic events. Importantly, the workshop affords ordinary users the opportunity to reflect on how they experience and feel about data capture as well as platforms' interpretation of such data. We have developed this method as part of our ongoing research project, 'Spotify (Un)wrapped', which is guided by the following questions: How do users see their behavior as shaped by the collective orientation towards Wrapped as an algorithmic event? How do users perceive the assumptions Spotify appears to be making about their identity, taste and lifestyle? Finally, can users resist this kind of datafication of listening habits, and if so, how?

This article does not provide a thematic analysis of participant contributions in response to these questions. Instead, we detail our methodological approach and demonstrate how it generates rich responses to such questions. In particular, we utilize arts-based methods to cast new light on the datafication of music taste as well as ongoing discussions in critical algorithm studies of how to know 'the algorithm'. The next sections outline our theoretical and methodological frameworks. As we detail later in this article, some of the terms introduced here play an important role as conceptual tools in the workshop itself.

Datafication of music taste, identity and lifestyle

We situate our project within existing research that investigates the implications of turning cultural production and consumption into data; a process referred to as 'datafication' (Mayer-Schönberger & Cukier, 2013). By investing heavily in machine learning capabilities over the years, Spotify has sought to deliver an increasingly personalized listening experience for users (see Stål, 2021). Spotify does so by processing the ongoing flow of user data and making predictive assessments about behavioral patterns and trends. As music listening is turned into data, companies like Spotify have, therefore, gained the capacity to make claims about 'knowing us' in new and intimate ways (Webster, 2023, p. 2141).

Personal playlists form a cornerstone of this operation. Spotify's playlist feature enables users to act as content curators of their music consumption and actively manipulate and maintain these collections over time (Hagen, 2015, p. 644). Playlists also provide Spotify with a detailed under-standing of the semantic meaning of particular songs and how they relate to specific situations and affective states (e.g. 'Songs I like to vibe to while gardening' and 'Relaxing music for anxiety and panic attacks', which are titles of two real playlists on Spotify). As such, Spotify users perform data labelling work by grouping songs together in personal playlists. By utilizing a machine learning technique called collaborative filtering, Spotify employs this information to recommend titles to subscribers with similar tastes and listening behavior (Stål, 2021). Put differently, your taste is not your own but something that, to a degree, is shared with countless others (Seaver, 2022, p. 25).

Morris and Powers (2015) point out that streaming services like Spotify sell 'branded musical experiences that target certain styles of musical access, discovery and use' (p. 109). They argue that such services try to reflect people's attitudes, everyday habits and feelings towards music back to them. In many ways, Spotify wants to be the musical backdrop in people's everyday lives. That leads Pedersen (2020) to argue that Spotify pushes users towards a form of 'ubiquitous listening', which favors music's 'functional' value (i.e. listening to music in the background while doing other things), 'rather than music's aesthetic value and the depth of the emotions it produces as an object of contemplation and attentive listening' (p. 87; see also Hesmondhalgh, 2022 for a critical overview of this debate).

Following this view, Eriksson et al. (2019) suggest that Spotify aims to reorganize the consump-tion of music 'around behaviors, feelings, and moods, which are channelled through curated playlists and motivational messages that change several times a day' (p. 5). Under the headline '💔', Spotify prompted one of the authors of this paper to click on a playlist titled 'Sad Girl Summer'. The playlist thumbnail featured a pink ice lolly melting against a rosy background, accompanied by the subheading 'It's okay to feel sad in the sunshine'. Later that day, the interface advised that same user to switch it up with a playlist called 'Serotonin', promising '100% good vibes'. This quick glance at the interface reveals how Spotify makes inferences about the gender, daily activities, fluctuating moods and aesthetic preferences of users. As such, Spotify can be said to play a role in '*programming our most mundane and intimate everyday activities*' (Burgess et al., 2022, p. 50). Our research examines how users respond to this everyday programming as part of the algorithmic event Spotify Wrapped.

Although Wrapped is the subject of media commentary, how people experience and encounter this algorithmic event has received limited attention in academic literature. An exception to this is the analysis of #spotifywrapped tweets carried out by Burgess et al. (2022). They refer to the Wrapped phenomenon as a 'Spotify data selfie', which implies there is a tension between looking inward and looking outward. However, Burgess et al. emphasize the 'active, knowing and ambivalent relationship users have to Spotify's data-driven story about who they are as music consumers' (p. 54). This complexity shines through in users' reflections on the 'glitchy relationships between actual everyday practices and the algorithm's logics', such as nursery rhymes or white noise tracks making it to the top tracks list. For Burgess et al., tweets on these glitches expose how users make sense of the discrepancy between algorithmic profiles and the complexities of everyday life. Posting these reflections via the public hashtag #spotifywrapped furthermore allows users to take part in 'collec-tive intimacy' and 'processes of collective learning and debate about algorithmic culture' (p. 55). Our proposed method enables people to unwrap the different layers of datafication in a critical and engaging way. To this end, we build on existing research on everyday experiences and interpreta-tions of algorithmic systems.

Making sense of algorithms in everyday life

The repackaging of user data is integral to Wrapped and can be situated within the configuration of the self through data assemblages. A data assemblage is a socio-technical

system composed of several apparatuses and elements that entwine, develop, and mutate over time and space (Kitchin, 2014, pp. 24–25). As Lupton (2016) puts it, personal data assemblages, which are responsive to new inputs and interpretations, represent a dynamic selfhood that is 'distributed between different and changing datasets' (p. 115). In a similar vein, Cheney-Lippold (2011) refers to 'algorithmic identities' produced by algorithms that infer categories of identity based on data. Such categorization of identity is projected onto individuals outside of their control (p. 176). Even so, some users attempt to control the configuration of their algorithmic identity by manipulating 'the ways in which their personal data are collected, archived and used' (Lupton, 2016, p. 117). Our workshop takes an interest in such practices, along with the ways users understand the role played by algorithms in subject formation.

We also draw on Prey's (2018) notion of 'algorithmic individuation', which he defines as 'a dynamic socio-technical process engaged in enacting the individual' (p. 1095). Prey notes the prevalence of algorithmic individuation on platforms like Spotify and how algorithms play an increasingly important role in subject formation: 'The "others" we interact with are increasingly algorithms reflecting back categorized images of our self' (p. 1096). Additionally, Prey explains what sets *algorithmic* individuation apart from earlier forms of individuation is the black-boxed nature of specific recommendations (pp. 1096–1097). Despite this knowledge asymmetry, we argue that Spotify actively promotes algorithmic individuation by pushing users to look inward through data analysis, especially during Wrapped season.

Wrapped also sits within a broader context of algorithmically curated memories. Work in digital memory studies has explored how platform 'Memories' or 'Year in Review' mobilize models of memory through the algorithmic 'remembering' of previously shared digital traces (see Jacobsen & Beer, 2021; Prey & Smit, 2019). Jacobsen (2022) calls attention to the way that algorithms impose narrative structures onto images. By grouping and resurfacing selected images as 'Memories' for users, the feature attributes meaning to the past and implies it 'knows' what is meaningful to the user, which is akin to the Wrapped rhetoric. By drawing on interviews and focus groups, Jacobsen (2022) shows how such memories are 'sociotechnically produced and felt in everyday life' (p. 2872).

For Bucher (2017), affective encounters with algorithms as part of everyday life involve what she refers to as 'the algorithmic imaginary'. This concept is central to our workshop method as it emphasizes how people perceive and navigate their everyday experiences with algorithms. This sense-making process often plays out socially, which researchers have called attention to with terms like 'folk theories' (e.g. Eslami et al., 2016; Siles et al., 2020) and 'algorithmic gossip' (Bishop, 2019). Following this line of thought, Gandini et al. (2023) argue that algorithmic systems construct users as digital and data subjects, but human users also subjectivize the algorithms in return. Users engage in this 'counter-subjectivation' in response to the individuation enacted by algorithmic systems: 'In so doing, users engage in a process of "othering" of the algorithm(s), in an effort to differentiate their agency from that of "the algorithm"' (p. 418). Gandini et al. emphasize focus groups as a useful avenue for studying user interactions with this 'algorithmic other' (pp. 421–422). We agree and propose that feminist and creative approaches can push this method even further.

Feminist and arts-based approaches to digital culture

Our creative workshops are guided by the seven principles of data feminism outlined by D'Ignazio and Klein (2020, 2024): examine power, challenge power, rethink binaries and hierarchies, elevate emotion and embodiment, consider context, embrace pluralism and make labor visible. Intersectional feminism takes an analytical interest in the root causes of structural inequalities and how power imbalances can be challenged, rebalanced and changed. To this end, their data feminist framework examines and challenges the way the power of data is wielded unequally. That includes challenging the gender binary, 'along with other systems of counting and classification that perpetuate oppression' (D'Ignazio & Klein, 2024, p. 8). Data

feminism also elevates and synthesizes multiple forms of knowing. This means recognizing the knowledge that arises from people as 'living, feeling bodies in the world' and centralizing 'local, Indigenous, and experiential ways of knowing' (pp. 9–10). Following the work within critical data studies more broadly, data feminism furthermore situates data within its social context. It highlights the labor of data science and recognizes that 'all data is shaped by unequal social relations' (p. 12).

These principles underpin the design of the Spotify (Un)wrapped workshop. The principles of 'examining power' and 'rethinking binaries' are built into all of the creative exercises, which we demonstrate later in this article. The workshop is also orientated towards capturing 'pluralism', 'context' and the 'emotion and embodiment' of participants in how they approach Wrapped as an algorithmic event. As such, we contribute to the data feminist framework by detailing how it can be applied in a creative workshop setting to examine algorithmic events.

We draw inspiration from arts-based methods to evoke taken-for-granted knowledge of algorithmic systems, data assemblages and algorithmic events. In line with Lupton and Watson (2021), we argue that creative workshops can 'elicit the affective and multisensory contexts of people's feelings, practices and imaginaries concerning their digital data' (p. 463). This approach promotes a more embodied form of knowledge making which has traditionally been neglected in academic contexts. As Schwittay (2021) argues, 'feminist scholars have shown that this subordination is often connected to the devaluation of feminine forms of knowing and being in the world' (p. 42). Arts-based methods are therefore intimately linked with feminist research. For instance, such methods have been used in feminist research with girls and young women as a way to explore – often through crafting – experiences and feelings related to advertising, relationships, sexual violence and harassment (see Renold, 2018; Ringrose et al., 2021; Venema & Lobinger, 2017).

In their 'Algorithmic Autobiographies and Fictions' workshops, Bishop and Kant (2023) ask participants to respond to their 'algorithmic selves' generated through social media advertising data. After locating lists of ad topics, participants are invited to draw an algorithmic self and write about meeting this algorithmic self. Bishop and Kant note how this often sees participants dealing with inconsistencies of data and complexities of their layered identities. By engaging with their data and target profiles, participants are prompted to 'question how social media platforms are selling their identities and interests to marketers' (p. 1026). Our proposed workshop takes a similar interest in people's creative interpretations of their algorithmic selves.

Siles et al. (2020) also use creative drawing within their empirical work examining recommendations on Spotify. They utilize the concept of folk theories to analyze how participants produce 'rich pictures' that explain how they perceive the workings of algorithmic recommendations on Spotify. Bringing together these images with discussions in focus groups and interviews, Siles et al. demonstrate how participants mobilize different folk theories, which are used as resources to frame the agency of the user. Our project extends the interest of Siles et al. in understanding how people theorize and creatively engage with Spotify's data practices. We are especially interested in the algorithmic imaginaries, algorithmic identities and folk theories that emerge when Spotify users engage with Wrapped in a creative setting. The next section outlines how our interactive workshop format integrates feminist and creative approaches to facilitate such insights.

Running the Spotify (Un)wrapped workshop

Our two-hour workshop consists of five main elements: (1) introducing Wrapped and our conceptual toolkit, (2) decoding the Wrapped listening characters, (3) analysing Wrapped or the Spotify interface using a modified version of the walkthrough method (Light et al., 2018), (4) assembling a 'Spotify data selfie' (Burgess et al., 2022) in the form of a collage, and (5) a final wrap-up where participants reflect on their analytical journey. Participants collaborate in groups of five and engage in plenary discussions following each element.

The creative workshop is designed for ordinary people with an interest in Wrapped and familiarity with Spotify or similar music platforms. Although we draw on theories and methods used in academic research, the workshop does not necessitate prior knowledge or experience. So far, we have hosted nine workshops with more than 200 participants in the United Kingdom from 2023 to 2024. Eight workshops were with undergraduate and postgraduate students from the humanities and social sciences. The final workshop was part of a public engagement event, attracting a more general audience.

As researchers, we approach data collection during the workshop in keeping with Markham's (2006, p. 7) proposition that 'all methods decisions are in actuality ethics decisions'. In every workshop, we obtain informed consent from each participant to audio record their contributions in the plenary discussions, which are anonymized in research outputs. We also photograph and publish materials they produce, offering them the option to take these home should they wish. Although participants are invited to bring screenshots of their Wrapped, we do not ask participants to send us these documents as a form of data. Instead, we focus on their interpretations of their own data, prioritizing their analytical insights.

Positioning ordinary users as co-analysts

The Spotify (Un)wrapped workshop seeks to avoid reproducing the patterns of data extraction from users that platforms perpetuate. Instead, it is committed to the feminist value of reciprocity and benefiting the communities engaged with (Johnston & MacDougall, 2021, p. 3). Reciprocity involves the concerted efforts of researchers to 'give back' to participants, for instance in the form of time, resources or both (Ellingson, 2017, p. 49). First, we see the workshop as a place for participants to collaboratively gain tools to navigate and potentially resist everyday datafication. When funding permits, we also offer participants refreshments and a live music performance to enrich their experience and acknowledge their contributions. Finally, we seek to 'collaborate with participants as equals, speak *with* rather than *for* participants' and 'develop solutions to problems identified by participants' (Ellingson, 2017, p. 49).

Accordingly, we position our participants as co-analysts following the work of Robards and Lincoln (2017) and Markham (2021). Fundamental to Robards and Lincoln's development of the 'scroll back method' is the way participants narrate their digital traces as they 'scroll back' through a specific platform. This method recognizes how participants' sense-making and narration is an act of analysis, which generates interview data that can be further analyzed by researchers. Markham (2021) offers a similar sentiment with her call for research that enables people to 'act more as researchers of their own lived experience' (p. 400). Such a proposition builds on the valuable empirical work on how ordinary people perceive and experience algorithmic systems and datafication by recognizing their contributions as analytical. In the following sections, we highlight how this is operationalized within our workshop design and reflect on the insights made possible by these exercises.

Introducing Wrapped and our conceptual toolkit

The workshop opens with an introductory presentation to contextualize our approach to Wrapped. We present some background to its history and the most recent iteration. We also outline the concepts of algorithmic identities (Cheney-Lippold, 2011), algorithmic imaginaries (Bucher, 2017) and algorithmic gossip (Bishop, 2019). Sketching our theoretical apparatus establishes a shared vocabulary for the remainder of the workshop. In addition, it is in keeping with how we position participants' contributions as part of academic enquiries into everyday encounters with algorithmic systems.

We then move to an introductions round. In their groups, each participant shares one reflection on Wrapped or another instance of repackaged music data. Each group presents a common theme that emerged from their discussion to the wider group. Across our workshops, this introductory round has generated responses that range from celebration of Spotify's data capture and interpretation to critical and resistant readings. As one participant expressed: 'We really look forward to Spotify Wrapped because it gives us a little insight into what we've listened to in the year or like our experiences throughout the year'. This initial discussion often establishes core themes and topics that animate the rest of the workshop.

Decoding the listening characters of Spotify Wrapped

The first creative exercise invites participants to analyze the Wrapped listening characters. In 2022, Spotify developed 'Listening Personality' types to portray '*how* you listen to music, independent of *what* music you like' (McDonald, 2023). Echoing the Myers-Briggs MBTI Personality Types, four sets of binary characteristics (Familiarity/Exploration, Timelessness/Newness, Loyalty/Variety, Commonality/Uniqueness) are used to form 16 'Listening Personalities'. For example, the combination of the attributes Exploration, Timelessness, Loyalty and Uniqueness are labelled 'The Maverick' personality, which is further described as 'You know who you are as a listener. While everyone's bathing in the mainstream you're frolicking in that sidestream'. In 2023, Spotify called this feature 'Me in 2023' and assigned users one of 12 characters such as the 'Roboticist', 'Vampire' and 'Fanatic'. Like the 2022 iteration, 'Me in 2023' makes claims about users' behavior, taste and identity.

We approach these listening characters as a repackaged version of algorithmic identities (Cheney-Lippold, 2011), as they offer a glimpse into the categories of identity Spotify infers upon its users. The exercise encourages participants to critically discuss this categorization and theorize about their 'algorithmic other' (Gandini et al., 2023). It also invites reflection on whether platforms can meaningfully distil data points into simple characters, given that data assemblages are 'always mutable, dynamic, responsive to new inputs and interpretations' (Lupton, 2016, p. 115).

Each group receives a deck of the most recent listening character cards. This gives participants an alternative view of the categorization, allowing them to assess the range of characters and their descriptions. This is unlike the in-app experience of Wrapped where the user can only access their one assigned character. Participants are encouraged to make notes as a way to document their analysis. We provide the following questions to spark discussion: What connections does Spotify establish between music listening and taste? What do these labels suggest about how data is being collected? Reflecting on your Wrapped, how do you feel about this categorization? By centring their personal experience, this final question prompts participants to consider the process of algorithmic individuation propelled by Wrapped (Prey, 2018).

Across our workshops, we have observed how this exercise draws attention to the static and reductive nature of these listening characters. By restricting the user to one personality and collating user data, some of our participants experience Wrapped as collapsing diachronic, dynamic listening behavior, which they consider core to *how* their listening takes place. Here, the glitchiness of Wrapped (Burgess et al., 2022) goes beyond a disconnect in Spotify's representation of listening behavior from their lived experience to also critique the processes of categorization that rely on shallow assessments of 'true' listening behavior. For instance, one of our groups noted that the categorizations are 'very generic and simplistic (16 labels – how do they collect the data?)', followed by the question 'is this accurate?' (Figure 3). For others, this exercise raises questions of gendered algorithmic identities, evidenced through the language and imagery used within the cards. Finally, this exercise shows participants how their collective folk theories (Eslami et al., 2016; Siles et al., 2020) can generate useful insights into this process of categorization despite its opaque nature.

Figure 3. Participants analyze the 2022 'listening personalities' in February 2023.

Walking through Wrapped

The second creative exercise is a modified version of the walkthrough method developed by Light et al. (2018). This method involves mapping the affordances of an app by systematically moving through the navigation and flow of the interface. Within the technical walkthrough, the researcher assumes the position of the user and methodically observes characteristics such as the user interface arrangement, functions and features, textual content and tone and symbolic representation. In tracing how the app configures relations between actors, the researcher is encouraged to be sensitive towards 'how the app constructs conceptions of gender, ethnicity, ability, sexuality and class' (Light et al., 2018, p. 891). The walkthrough method has also been developed as an exercise for teaching environments to compare two apps that serve similar purposes (see Duguay & Gold-Apel, 2023).

In the Spotify (Un)wrapped workshop, the comparative app walkthrough takes a slightly different form. Instead of contrasting different apps, participants are invited to compare the interface of two different users. Our version remains committed to the orientation to Spotify's materiality as well as perceptions of affordances and built-in inequalities, but it is carried out within the time restraints of the workshop. Participants work in pairs to walk through either the Spotify app or their screenshots or recordings of the Wrapped in-app experience, focusing on the way data, personalization and identity are signalled and constructed. Most participants will only have access to screenshots of their Wrapped. For that reason, we provide an audiovisual recording of our own Wrapped data stories that participants can analyze if they wish. We see this as another way to flatten the power relationship between us as researchers and our participants. Many participants tend to engage with this recording to remind themselves of the structure, features and overall feel of the in-app Wrapped experience, even if the specific artists and stats differ from their own.
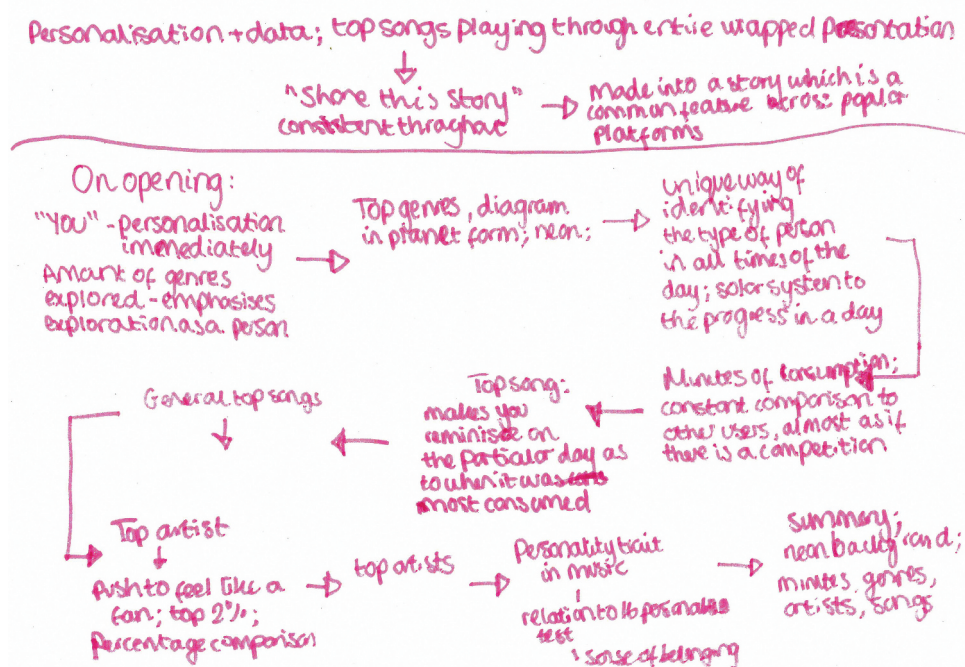
Figure 4. Walkthrough diagram of the 2022 Wrapped experience from February 2023 workshop.
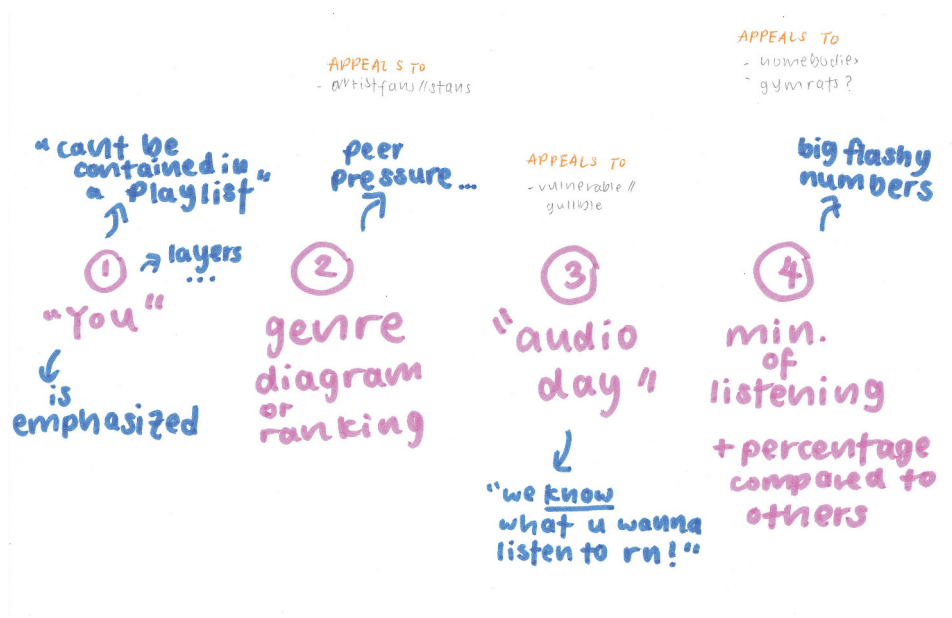

Figure 5. Walkthrough diagram of the 2022 Wrapped experience from October 2023 workshop.

As part of the analytical process, they produce a visual representation of their observations about the ways data and identity entangle (Figures 4 and 5). This usually takes the form of a diagram, flowchart or drawing. These visual representations provide an alternative way of documenting the process of engaging in a technical walkthrough and nudge participants to consider the flow of

navigation alongside the visibility of content. By directly contrasting the navigation through the Spotify app or the Wrapped screenshots and recordings, participants observe differences and similarities in the interface, which they use to establish how Spotify acts as a mediator of personalization. Among other things, this exercise enables participants to identify differences in color schemes and types of recommendations, for instance in relation to underlying conceptions of gender.

In our experience, participants tend to connect details made visible through the walkthrough with insights from earlier discussions. For instance, Figure 4 proposes that the 'Listening Personality' remediates the 16 personalities test and, in doing so, our need for a 'sense of belonging'. Meanwhile, Figure 5 uses different colors and quotation marks to distinguish between descriptions of elements with their own interpretations. These two diagrams demonstrate how our modified walkthrough can be used to analyze complex socio-technical systems like Wrapped within a short timeframe. We see this inclusion of a visual element as a contribution to the further development and application of the walkthrough method.

Creative responses to Wrapped as an algorithmic event

Drawing on the feminist and arts-based approaches to digital culture outlined earlier, the final exercise sees participants producing a physical artefact. This creative exercise affords participants agency to express their experiences and thoughts in ways that differ from other exercises. Participants construct a Wrapped collage or 'Spotify data selfie' (Burgess et al., 2022) using material objects such as CDs, vinyl records, magazines, glitter and markers. We emphasize to participants that this can be a response, critique or a rearticulation of their Wrapped. In other words, the exercise requires participants to produce an artefact that connects to the algorithmic event, but is not limited to Spotify's data practices.

Prior to the workshop, participants complete a form to confirm their attendance and tell us their top Wrapped song. While participants assemble their collages, we stream a playlist of these songs curated for that workshop and, when funding permits, a musician may perform a short set. The creative exercise also adheres to D'Ignazio and Klein's (2020) principle of 'elevating emotion and embodiment'. Importantly, participants do not produce the artefacts to discursively unpack them afterwards. Following Vacchelli (2018), we argue that an embodied approach should resist the use of collage as an elicitation strategy: 'The artefact itself (the collage), the narrative used to discuss it, the memories and the emotions evoked by the research participants are used to "hear the stories" the participants tell through their bodies' (p. 174).

Through their collaging, participants convey a variety of feelings, experiences and perceptions. One creative artefact (Figure 6) reimagines the 'top artist' metric by imbuing it with personal, subjective experiences. The collage overlays different geographies and temporalities (as represented through the clock) to indicate the meaningfulness of listening to music. It thereby hints at the limitations of the Wrapped articulation of 'knowing the self'. Another example is Figure 7, which uses smashed CD pieces to represent fragmentary shards of identity that the platform reflects back to the individual. In a playful way, this artefact challenges the premise of Wrapped and questions whether the platform can use data to make meaningful claims about identity. Figure 7 critically deconstructs Wrapped, while Figure 6 visualizes the experience of listening over time in a way that transcends Spotify's data stories.

From our experience, several participants produce artefacts that resonate more closely with the format and visual identity of the Wrapped data stories. Others may centre on a celebration of individual music tastes constructing a fan-identity. We propose that the openness and flexibility of the creative exercise lend itself to such diversity: It affords opportunities for critical reflection on the datafication and personalization that underpins Spotify, but it is also a space for participants to express their relationship to music listening more broadly. This includes the functional, aesthetic *and* emotional value of music.

Figure 6. Creative artefact produced at one of the Sheffield workshops in 2023.

Figure 7. Creative artefact produced at one of the Sheffield workshops in 2023.

Figure 8. Collaborative artwork made by two participants at a London workshop in 2023.

Analytical journey in the Spotify (Un)wrapped workshops

The workshop adheres to what Markham (2013) calls ongoing playful engagement with remix methods. We envisage the structure of the workshop – three distinct exercises that build on each other – as an analytical journey for participants to investigate different aspects of Wrapped. The data generated in the form of audio recordings of plenary discussions and participant creations (diagrams, artefacts, notes) can be analyzed by researchers in multiple ways. It can be approached through insights generated by separate exercises, but can also be brought together thematically, making connections across the different exercises.

The production of creative artefacts in the final exercise functions as the culmination of the participants' analytical journey throughout the workshop. The previous exercises become part of the material that participants choose to draw upon in their creative responses. For instance, one collaborative piece between two participants (Figure 8) reflects on their exploration during the walkthrough of how categories of recommendation intersected with gender. Similarly, when discussing Figure 9, another participant refers to the first exercise, noting: 'Spotify – with the personality things – is trying to make everyone feel like "oh, they're special in their music taste", but we are all listening to Taylor Swift and crying about our lives'. The artefact also highlights the power of the recommender system by replacing 'here's what you liked' with 'here's what Spotify suggested', indicating that Spotify acts as a co-constructor and mediator of taste. Finally, the participant hints at the celebratory aspects of understanding the self through behavioral data with the creation of a 'musical year in a flipbook'. The multiplicity of these narratives speaks to the complicated feelings towards Wrapped as participants navigate the algorithmic intervention into their experience of music.

Figure 9. Creative artefact produced at a London workshop in 2023.

In keeping with our emphasis on participants as co-analysts, we invite participants to reflect on the design of the workshop. On a slide, we include key terms like algorithmic events and pose possible prompt questions: 'Spotify "knowing us" – can we resist? If so, how?' and 'What questions still need to be asked, and what needs to be explored?' Participants write their answers on sticky notes, which we use to shape future iterations of the workshop and our research agenda.

Discussion and conclusion

Every year, Spotify holds a data mirror to its users with the release of Spotify Wrapped. We regard Wrapped as an algorithmic event that naturalizes the process of extracting data and repackaging it to make claims about identity and taste. Our workshop method allows participants to explore how this process is injected with assumed value for users, and how that maps onto the platform's efforts to attract and retain subscribers. It provides different entry points for creatively and critically unpacking datafication and Spotify's claims about 'knowing us' through our data (Webster, 2023).

Building on feminist arts-based and creative workshop research methodologies (e.g. Bishop & Kant, 2023; Lupton & Watson, 2021), this article has introduced the Spotify (Un)wrapped workshop. Our proposed method consists of reflective and creative exercises that allow participants to act as co-analysts. We propose that our interconnected but distinct exercises take participants on an analytical journey that culminates in the production of a creative artefact. This workshop setup provides space for people to encounter their 'Spotified' selves from different angles and critically explore what they think of such data-driven interactions.

Our application of a data feminist framework (D'Ignazio & Klein, 2020, 2024) contributes to existing scholarship on the datafication of music consumption (e.g. Burgess et al., 2022; Eriksson

et al., 2019; Morris & Powers, 2015; Pedersen, 2020; Seaver, 2022). More specifically, a data feminist approach allows us to centre the experiences, feelings and perspectives of participants in research, which subverts the Wrapped premise of constructing identity and music taste *for* users based solely on their listening data.

Participants and workshop facilitators collaboratively examine the power dynamics between Spotify and its users. That includes a focus on how conceptions of identity (e.g. with regard to gender, ethnicity, ability, sexuality and class) can be observed in Wrapped. We propose that the focus on normative assumptions baked into Wrapped in particular has the potential to generate critical insights that go beyond existing approaches. As we have shown throughout the article, the workshop format enables researchers to generate a wealth of empirical data. However, it brings with it the limitation of a deeper understanding of individual participants' experiences. The workshop could be combined with other methods such as interviews or focus groups with fewer participants.

Through our workshops, we seek to transform algorithmic events like Wrapped into an opportunity for critical reflection on the underlying algorithmic logics, power structures and social dynamics. Our concept of the 'algorithmic event' and application of the data feminist framework to the creative workshop setting could be taken up by researchers to examine other entanglements of algorithmic systems and daily life. Our reflections on the workshop and exercises gesture towards the complicated feelings towards Wrapped and how Spotify shapes music listening and identity construction. The workshop makes space for participants to grapple with the claims that Wrapped data stories can and do reflect the 'self' in a meaningful way. As we have argued throughout this article, the insights generated with this methodological approach both utilize and advance existing theorizations of algorithmic identities (Cheney-Lippold, 2011), algorithmic individuation (Prey, 2018), personal data assemblages (Kitchin, 2014; Lupton, 2016) and the 'Spotify data selfie' (Burgess et al., 2022). Analysing the nuanced responses and creative artefacts produced during such workshops offers another avenue for examining how people applaud, interrogate and resist the collective orientation towards algorithmic systems during algorithmic events.

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Data availability statement

The participants of this study did not give written consent for their data to be shared publicly. Due to the ethical and confidential restrictions of the research, supporting data is therefore not available.

Departmental ethics approver

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