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# Getting Something for Nothing? A User-Centric Perspective on Loyalty Card Schemes

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## ABSTRACT

Loyalty cards are a form of tracking and recording technology (TRT) that enables retailers to collect data about their customers' demographic and purchase behaviours. As recompense for sharing their data consumers receive 'loyalty points' which they can redeem for exclusive discounts and rewards. The design of loyalty schemes, and TRTs more generally, plays a key role in defining the economic terms of that exchange, and ultimately the economic value of personal data. In this paper we present findings from an interview study with 12 loyalty cardholders in the UK explicating the ways in which they create (and lose) value through the everyday practice of shopping with loyalty cards and the orientations associated with them. Based on our findings we suggest cardholders are less concerned with the protection of their privacy than with leveraging its value, only some of which was economic. We provide design guidelines for TRTs that may enable consumers to derive greater value from the data they produce and share.

## Author Keywords

Loyalty cards; tracking and recording technologies; retail shopping; personal data; digital economy; interview study.

## ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous;

## INTRODUCTION

Loyalty cards are a common way for retailers to reward returning customers with exclusive discounts and benefits in the hope of making them loyal to the store. In the UK, most major retailers offer loyalty schemes, the three biggest of which in 2015 were Nectar (an association of over 500 UK brands, 19m users), Boots (health/beauty retailer, 17.9

m users), and Tesco (supermarket, 16m users) [5]. Cardholders collect reward 'points' relative to their spending by scanning their loyalty cards at the till or when checking out online. Loyalty points can then be redeemed for discounts on the customer's shopping or products and services sponsored by associated third parties (e.g. Tesco Clubcard, Nectar Card). In addition to the accumulative 'points' schemes, some retailers offer discrete rewards, such as exclusive discounts on products or free items (e.g. myWaitrose card).

The numbers of cardholders in the UK indicate that loyalty cards are hugely popular among consumers and profitable to the retailer. Yet, loyalty schemes are not uncontroversial. As customers collect points, retailers collect personal data, including demographic data (name, age, gender, postcode, etc.) and individual level purchase data (who bought what, where, when, and at what price) [19]. This data enables retailers to build a customer database, to profile their customers, to target them with tailored incentives, and thus to maximize the profitability of their promotional and pricing strategies [31]. In sharing their personal data, users thus create economic value through their on-going shopping activities, only a fraction of which is passed back to the user in the form of discounts (e.g. [1]).

In this paper we present findings from an interview study detailing people's everyday practices and orientations surrounding loyalty cards in the UK. In doing so, we unpack the process of value creation from a loyalty cardholder perspective. We found that value creation was very much embedded in a cardholder's everyday shopping practices, was guided by her orientations towards sharing personal data and the particular affordances of a loyalty scheme. Cardholders' key concerns were less with privacy than with value creation, only some of which was economic. Our findings offer an alternative view on loyalty cards to the business perspective found in the marketing literature (see [10] for a review), and complements the literature on tracking and recording technologies (TRTs) in HCI, which traditionally takes a user focus, but is largely concerned with issues surrounding privacy (e.g. [28]), while building on the conceptual groundwork laid in human-data interaction (HDI). Finally, we highlight the ways in which a lack of transparency at the stage of personal data

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collection, processing and use fails to provide the producers and subjects of the data with an active role in the value generation process, as well as offer implications for the design of human-data interactions.

### RELATED WORK

In the early 1990s loyalty programs were introduced to: “build lasting relationships with customers, and to do so by rewarding loyal and heavy or frequent buyers” [37]. The assumption that loyal customers “buy more, pay premium prices and introduce new customers through referrals” [30], however, has received little empirical support (e.g. [24], [11]). In fact, ‘loyalty’ is assumed to be the result of repeat purchases (behavioural dimension) and a favourable attitude towards a business (affective dimension) [9], and a prerequisite for loyalty card adoption rather than its consequence (e.g. [8], [33], [20]). Despite the pervasiveness of loyalty schemes, the quality of the rewards may still give businesses a competitive advantage, such as the rewards’ cash value, range of choice, aspiration values, as well as the perceived likelihood of achieving the rewards [8].

Loyalty cards are a specific instance of a more general class of tracking and recording technologies (TRTs) and have been discussed as such in the HCI literature. In much of this work, data is related to concerns over privacy (e.g. [4], [35]), highlighting a discrepancy between a high *general* concern for information privacy and a low concern of *specific* recording technologies (e.g. [39], [14]). To start to unpack this discrepancy, Ngyuen et al [29] offered survey data on attitudes towards six tracking and recording technologies in a retail setting, including loyalty store cards. They found that while participants were aware of some of the potential risks of TRTs (e.g. identity theft, credit card abuse) and felt they should be concerned about them, they focused on their benefits instead (e.g. ease of use, evidence of transactions). The findings resonate with those from a US survey [14], in which loyalty cardholders primarily associated loyalty cards with promotional benefits rather than data collection practices, and had few privacy concerns. Ngyuen et al further suggest that this lack of concern results from users having a limited understanding of the technologies, and thus a limited ability to assess the risks associated with the collection, processing and dissemination of recorded consumer data. At the same time, TRTs were considered a non-issue due to a sense of having nothing to hide, being invisible in the data, being covered by regulation preventing or prosecuting abuse, and ultimately a lack of concrete negative experiences. In addition, participants felt impotent due to a lack of alternatives. Nguyen et al [28] further applied a framework of seven tensions to the adoption of institutional TRTs (by governments and businesses), identifying a lack of data ownership, choice (e.g. to opt out or to negotiate terms of use), visibility and awareness of recording, archiving and deletion, trust (in the institutions and technologies), features of rich media (data was not considered to be useful,

exclusive or visible), control over presentation of self or ‘face’, and decision point (when to participate in recording).

With an increase in online and networked services built around the use of personal data, and the economic power imbalance it creates in the personal data ecosystem in favour of the businesses, Haddadi et al [15] have called for an explicit focus on human-data interaction (HDI) within HCI. HDI seeks to ensure users can be ethically and practically engaged in the process of data collection, analysis, and trade by attending to three core themes: legibility, agency, and negotiability [25]. In highlighting the social and relational nature of data production and use, Crabtree and Mortier [6] further argue that the challenges of HDI do not simply lie with getting the users actively engaged, but with facilitating the ‘articulation work’ that is involved in coordinating our data sharing activities with other parties implicated in the exchange, which is inevitably shaped by the particular and evolving relationships they share.

In sum, by looking to understand the ways in which the use of loyalty cards is embedded in people’s everyday shopping practices we not only take a user-centric perspective, but also consider the broader social, economic and material circumstances of personal data production and use. In doing so, we offer an alternative to the marketing literature that, in aiming to identify the behavioural and affective dimensions driving loyalty card use, takes a cognitivist perspective, while building on the conceptual groundwork laid in HDI.

### DEFINITIONS OF VALUE

If we understand loyalty cards as the TRT that links individual consumers to the co-creation of value through the flow of personal data, it is important to understand the forms of value that operate in the high street.

Value is a complicated term to unpack because its definition differs across socio-economic contexts [18]. However, given the growth and nature of digital economies that offer highly flexible means of exchanging value, disciplines including Consumer Culture Theory and Service Dominant Logic have called for a clearer articulation of the different concepts of value [2, 27, 40]. Karababa & Kjeldgaard [18] offer a constructive and accessible introduction to understanding the notion of value from a socio-cultural perspective. Following summaries of three abstract types of value: economic value, semiotic value, and social values, the authors introduce a further seven ‘avenues’ that can be followed to better understand how value operates within consumer contexts: exchange value, perceived value, social values and value systems, experiential value, identity and linking value, value as co-created, and finally value as the co-creation of meaning. Of the seven we expand on four of these to support this research.

Karababa & Kjeldgaard introduce *Exchange Value* and remind us that although the cost of production is

predominantly the driver for fixing the price of goods, the value to the consumer is highly relative based upon individual social, psychological, and economic dimensions. A definition for *Social values and value systems* are recovered from Rokeach who defines them as “core conceptions of the desirable within every individual and society” [32]. These values inform consumer decision making in store, but more importantly challenge people to consider how a product will play a part in their lives in the long term, both for the individual as well as society, a concept that has been explored extensively through CHI workshops [21, 13]. Use Value, and more recently, *Experiential Value* is perhaps the closest avenue to principles that underpin a significant proportion of HCI research in which hedonism, play and fun inform the value of products or how they are sold. Consumers value shopping experiences that are enjoyable and allow them to pursue fantasies, emotions, and fun, all of which are reconciled against economic values [3]. *Value as co-created* introduces the reciprocal push and pull between shops and the consumer to produce both economic benefits in the form of revenues and profits, but also emotional, symbolic and social values. This type of value is particularly important to the paradigm of Service Dominant Logic (SDL) that proposes that markets and society are better understood through the exchange of services, which include knowledges and skills, but not products [23]. Ng adopts SDL to best describe how value is exchanged in many digital economies, in which data is used to offset production cost [26]. The *Value as co-created* ‘avenue’ further underlines the role of data within digital economies, including loyalty cards, in which value propositions and their meaning are produced through the mining of patterns in consumer data.

It is no coincidence that the growth of loyalty card schemes has occurred in parallel with the renewed interest in defining contemporary conceptualizations of value. Loyalty schemes offer a platform across which economic, semiotic, and social values can be correlated, and as the digital economy has connected social networks with consumption we can see how Karababa & Kjeldgaard’s seven ‘avenues’ of value are explored, co-created and exercised by both consumers and loyalty card corporations. It is particularly the final two avenues that represent the opportunity for loyalty cards and the data that they collect to be best understood. As an active mediator between consumer and market, loyalty card schemes are heralded as co-creators of value - both service and product - as well as meaning.

As a consequence, the use of loyalty cards represents a useful case study for both HCI and HDI to understand the ways in which people understand how personal data transforms the value of goods and services, and whether the expectations of the services fulfills the potential for new models of value.

## METHODOLOGY

The aim of our study was twofold: first, to understand how loyalty card use and adoption was embedded in everyday shopping practices (from initial sign up to collecting and redeeming points) and how through these practices people create and derive value from the schemes. Second, we were interested in cardholders’ orientations towards schemes that collect and process their shopping data in return for rewards. Our approach was exploratory in that we were interested in providing detail about the range of distinctive behaviours and orientations surrounding loyalty card use rather than testing any a priori hypotheses or making general claims about what most loyalty cardholders do.

### Method

We conducted a series of one-on-one semi-structured interviews. Topics included questions about their living situation, as well as their loyalty card adoption and use from collecting, monitoring, and redeeming to sharing loyalty cards or points. In addition, we were interested in participants’ awareness and attitudes towards retailers’ uses of their shopping data. The individual interviews resulted in 502 mins total of audio data (mean 42 mins), which was transcribed. The interviewer developed an initial coding scheme, analysing each interview for emerging themes, which were clustered into topics and then compared across interviews.

P	S	A	Household	Grocery Store	Drugstore	Coffee Shop	Retail
1	F	27	Married	Sainsburys, Tesco	Boots, Superdrug		
2	F	24	Shared		CBS		
3	F	26	Co-habiting	Sainsburys	Boots, Superdrug		
4	F	20	Shared	Sainsburys	Boots	Subway, Greggs	Rymans
5	F	39	Civil Partnership, 1 child	Sainsburys, Waitrose	Boots		
6	F	18	Shared	Waitrose	Boots, Superdrug	Costa	Paperchase, Accessorize
7	F	48	Shared	Sainsburys, Tesco, Scotmid		Starbucks	
8	F	22	Shared	Holland & Barrett, Tesco	Boots		Bodyshop
9	M	34	Co-habiting	Tesco, Lidl	Boots		
10	F	32	Shared	Tesco, Nectar	Boots	Costa	
11	F	38	Co-habiting, 3 children	Tesco	Boots		House of Fraser, Ikea
12	F	26	Co-habiting		Boots, Superdrug		

**Table 1:** Participant number (P), sex (S), age (A), household, and loyalty card ownership based on retail sector (grocery store, drugstores, coffee shops, and retailers).

## Participants

We recruited 12 participants (see Table 1), 11 female and 1 male, aged between 18 and 48 (mean 30 years) through convenience and snowball sampling. In line with our exploratory approach we looked for diversity (a mix in gender, age, and household type) in our sample rather than representativeness. Unfortunately, responses from male candidates remained low, possibly due to a majority of loyalty card holders in the UK being women [36] and women generally being more involved in shopping than men [38]. Occupations included an educational technologist (p5), a policy advisor (p3), a research support assistant (p1), a lecturer (p9), undergraduate (p4, p6, p8, p10, p11, p12) and postgraduate students (p2, p7). Household types included two married or in a civil partnership (p1, p5), four co-habiting (p3, p9, p11, p12), and six sharing (p2, p4, p6, p7, p8, p10); two participants had young children (p5, p11). Eight participants had a Boots Advantage Card (p1, p3, p4, p6, p8, p9, p10, p12), six had a Tesco Clubcard (p1, p7, p8, p9, p10, p11), five a Nectar card (p1, p3, p4, p5, p7), three a Superdrug Health & Beautycard (p1, p6, p12). Other cards included a Subway Card (p4), Greggs (p4), Costa Coffee (p6), Starbucks (p7), Paperchase (p6), Accessorize (p6), and The Bodyshop (p8).

## PRACTICES AROUND LOYALTY CARDS

In this section we report on findings from an exploratory interview study describing shoppers' practices surrounding loyalty cards across their consumption lifecycle from adopting to collecting, monitoring, redeeming and sharing loyalty cards, points, and rewards.

### Adoption

In our sample, the adoption of loyalty cards was associated with high spending, either due to shopping with a business frequently (e.g. a weekly shop for groceries) (p1, p2, p3, p4, p5, p9) or making a single big purchase (e.g. a sofa) (p4, p11). Particularly with grocery stores, which are frequented regularly, it was less the availability of the loyalty schemes that attracted participants to a particular shop than its convenient location, price or ethics (p2, p3, p4, p5).

The main drivers for signing up for a loyalty card were external incentives (e.g. rewards), the influence of others (e.g. word of mouth/advertising), and a sense of community or membership. Most commonly participants were motivated by receiving rewards or saving money through the schemes. As participants were already 'loyal' to the shop and signing up for the scheme was free many participants had the sense of 'getting something for nothing', felt they 'should benefit somehow' or 'get something back' (p1, p4, p5, p6, p9, p11). During periods of low income or unemployment the focus was more on 'saving money' or 'trying to buy smarter' (p2, p3, p7, p8, p12). Others came to adopt a loyalty card through friends or family (p5 p9, p11, p12), sales assistants (p3, p6, p10), or store advertising (p12). P5 offered a case in point: "I think someone said to me: 'Look at this huge trampoline I bought with my Nectar card points and I was like: 'Man, maybe I

*should be doing this!'". In other cases sales assistants issued loyalty cards at the checkout without a participant's consent: "[They] didn't even ask if I wanted one and they scanned it and they've given it to me. I just find that a bit aggressive and weird, they forced it upon me. I think their sales advisors are trained to sell it to you. They asked for my address and I couldn't just refuse giving it to them and I felt a bit horrible about that. It was really bad service" (p3). Finally, participating in a loyalty scheme felt like 'there's a nice little membership feel to it' (p4) or like 'integrating into a culture' while living abroad (p3).*

There were two key hurdles in the adoption of loyalty cards, including glitches during sign up and changes in people's shopping practices. To sign up participants provided 'standard' or 'really basic' information, such as name, address, e-mail, date of birth, and gender (p2, p12). Users can sign up in store or 'activate' their card at a later date by filling in their information online. As a result, some cards remained 'inactive' because 'other things took priority', they 'didn't realize you had to register', or simply 'never bothered' (p4, p10, p11). Participants discontinued using particular cards because they moved away from the area, stopped going to a shop, lost the card, or did not understand its scheme (p2, p5, p6, p9, p11). Similarly, their reasons for not signing up with a particular scheme were largely practical, such as not being willing to make the time or financial investment required for their participation to be 'worthwhile' (p1, p2, p4) or because the shops they were loyal to did not offer a scheme (p4, p6). Only one participant expressed privacy concerns over subscribing: "I think the Nectar thing, because it was across all the shops, I thought it was a bigger beast, which put me off for a while. I thought I don't want them to know that kind of information about me" (p5).

### Collecting

In order to receive rewards associated with a particular purchase loyalty cards need to be scanned at checkout or registered online with a code printed on the sales receipt. As cards were scanned manually, they were not used with every purchase, either because participants did not have their card on them, forgot to scan it or because they selectively opted out. Most participants would aim to scan their cards with every purchase. However, loyalty cards were kept in a variety of places, including wallets, on a key ring, in clothes pockets, in a drawer at home, and in the car, which influenced whether or not they were readily at hand during checkout. Without prompts by sales assistants or self-checkout machines participants would often miss scanning their cards, which was 'annoying because that defeats the purpose really' (p11, p12). Others were less inclined to scan their cards for smaller amounts (p3, p6, p9): "If it's under a pound I don't 'cause you don't get points. I only want to give my data to them if they are going to give me a point in return" (p9) and "Even when I have my card with me, say it's at the bottom of my bag, I know I

won't get it out because I know [] it'll take me like 20 years to be able to collect £2 and get a lip balm" (p6).

Generally, participants had limited awareness of the rules underlying the various loyalty schemes they had subscribed to, but participated regardless. While they understood that some cards involved the collection of reward 'points' in relation to their spending (e.g. Sainsbury's, Tesco, Boots) and others gave access to exclusive discounts (e.g. Waitrose, Paperchase) they only had 'a vague notion' of the exact amounts of points certain cards offered or how the discounts related to their spending. Among the accumulative schemes Boots seemed the most transparent offering 4 points per £1 spent (p3, p4, p6, p9) while other reward schemes remained entirely obscure (p2, p5, p6), such as Waitrose's: *"It always surprises me, sometimes I'm like 'Is there any point in handing over my card if I'm not going to want a ((free)) coffee or paper?', but sometimes the prices still goes down, so I know there are still discounts that aren't always clear. I mean if I paid more attention to it I'd know that it's the twenty or so items that give you 20 per cent off"* (p5).

### Monitoring

Although a customer's 'points balance' was available through receipts, sales assistants, online accounts, or email notifications, few participants checked it (p3, p6, p7, p11) until there was an intention to redeem them for rewards (p1, p4, p5, p9, p10, p12). A possible reason for the lack of monitoring may be that 'abstract' points do not easily translate into concrete rewards, and are thus difficult to keep track of in terms of value: *"The point system always seems a little unintelligible, it's always some weird amount that you're never trying to consciously add up to. I don't like the points. It always reminds me of being a little kid in an arcade and you buy tickets and need like 5000 tickets to get a pencil"* (p4). Not monitoring one's point collection may thus also be a way of minimizing disappointment with low returns in the present in hope of a better future: *"I like the thought of amassing quite a lot and checking them years later and being able to cash in quite a lot"* (p4). In addition, the value of points can vary as customers receive special offers to multiply either their points or their points' value. Taking advantage of these offers required a degree of 'savvy-ness' or 'attention' many felt unable to maintain (p4, p5, p11): *"There's certain windows of opportunity where you get a bit more for your points, or where you double your points, or something. And I don't really seem to be able to track that very easily, so I don't really take advantage of them"* (p11).

### Redeeming

Points could be redeemed in one of two ways: to receive a discount on one's purchase or a product or service from an affiliated sponsor (e.g. cinema tickets). Which option participants chose often depended on their financial circumstances. As we would expect, using points to get money off one's regular shop was more common during

periods of low income, such as when studying or being unemployed (p2, p6, p8, p10, p12). In this case points were often redeemed opportunistically. Saving up points, on the other hand, was often done to treat oneself or others, for instance, to a perfume or a day/night out (p4, p5, p7, p8, p11): *"At Christmas time I'll go and get [my nephew] a backpack or t-shirts or some cool Coca-Cola thing that a little boy would like, and that saves me from buying a gift, so that comes in handy"* (p7). P3 alternated between the two: *"I sometimes save them up and when I've got £10 or £20 off I buy myself a treat or if I'm quite broke one month and I need toiletries I'll use them for that"*. Additional rewards in the form of paper vouchers and coupons attached to the sales receipt would commonly be 'binned' or 'lost' unless they offered discounts relevant to one's regular purchases (all except p6 and p9), in which case they were kept in wallets and clothes pockets until the opportunity arose to redeem them.

### Sharing

Some participants shared loyalty cards or accounts with family or friends. When signing up with Tesco or Nectar, customers receive two loyalty cards associated with their account, one of which could be passed on to another person, such as a partner, child or friend (p1, p3, p5, p9, p11). Particularly among partners, some had been collecting points jointly since signing up, while others merged two separate accounts at a later stage. Again, the rationale behind sharing accounts was largely practical rather than strategic. For instance, when signing up for her Nectar card p5 'didn't give any consideration to whether it would make financially sense to have two separate accounts or a joint one'. P3 had linked her Nectar card account to her partner's train company account rather than creating a new one, while p11 had merged their initially individual Tesco accounts into one 'to get a bit more'. Outside a partnership, p8 had given her extra loyalty card to her housemate to collect points for her. Finally, when shopping with friends or family who didn't have a loyalty card, some participants would occasionally have them scan their own cards so as not to forfeit the points (p3, p4, p12).

When sharing accounts, ownership of the points or the right to redeem them, was often tied to who had done the work of collecting them. Those partners who had equally contributed to their shopping generally shared ownership over their points (p1, p3, p11). Ownership was thus made manifest through collecting and redeeming points rather than being explicitly negotiated. For instance, while p3 was officially the owner of the account, ownership had become shared through sharing the practice of collecting: *"Any points we've accumulated, we've accumulated them jointly, even though the card's in my name, it just doesn't feel right if I was using it all for myself. If I took it to the supermarket I would get something that we both enjoy, like some wine to share"* (p3). Further, ownership was shared when points could be redeemed on shared pleasures: *"It feels like if there's a bonus or a fun thing to do it should be shared"*

equally for the family, 'cause it's a treat and no one person should have that" (p11). Nevertheless, while it was clear that the reward had to be shareable, what constituted a shared reward was a matter of negotiation: "It would probably be something that we both like, like food or a drink. We still can't decide what to do with it. I think we should get a subscription, like National Geographic, or something like that, but [husband] 'll be like 'No, let's get a bottle of whiskey!' (p1).

Accordingly, in households with a main shopper, ownership was more ambiguous. P9, for instance, often redeemed their points on going out for dinner with his partner, but felt free to spend them on himself: "I would just go ahead and do that. I'm the main shopper in the household". Similarly, p5 hadn't consulted her partner on taking her daughter for dinner: "I haven't asked permission if these are ok to use, so maybe I do feel like they're mine, but she is aware of them and she could equally, if she wanted to, spend them on whatever, she's just not interested in doing the research needed". Partners may thus also have developed different stakes in a scheme by having become competent in and through collecting and redeeming points: "Once ages ago, I was saving them up, waiting for some type of deal till we had enough money [for a trampoline] and then my partner did shopping one day and was a bit short, so at the till they said 'you have lots of Nectar points, why don't you use them?'. And rather than just using them for whatever she was short she used them all, and I was like 'Oh man! That's a totally inefficient use of Nectar points!'" (p5).

In addition to being used jointly, loyalty cards would also occasionally be passed on to others. P6, for instance, used her mother's Boots card while waiting for her own card to arrive. A delay in shipping meant she had accumulated a significant amount of points on the card and was now reluctant to return it, because 'technically it's mine'. Similarly, p2 passed on one of her discount cards to a friend when she left [US city] to move to the UK. Again, taking advantage of having multiple cards associated with one account, p11 had an arrangement with her mother-in-law to redeem her Tesco points on fuel as she herself wouldn't be able to use them. Finally, p9's mother 'would sometimes give me her card and say 'go and do your Christmas shopping at Boots on this'".

#### **ORIENTATIONS TOWARDS LOYALTY CARD DATA**

From a user perspective, loyalty cards are first and foremost a means of adding value to the everyday, and thus often necessary, practice of shopping. From a business perspective, loyalty cards are primarily a means of collecting demographic and shopping data about their customers. So every time a user collects points, the company collects data. In this section, we report on how our participants understood and felt towards this exchange and to what extent their orientations were informed by or affected their everyday practices around loyalty cards.

#### **Companies Profit from Consumer Data**

Our participants were aware that companies ran loyalty schemes for their own profit. More specifically, they thought businesses offered loyalty schemes: to lure people into the store, to get more customers, to keep people coming back, to give them an incentive to spend, and to get them to spend more money (p1, p2, p7, p10, p11, p12). In short, they were 'a big scam to get you into the door and spend more money' (p4). It was further clear to them that companies collected shopping data through loyalty cards and that this data was used for customer profiling and marketing purposes (p1, p11, p12, p3, p5). How exactly their data was used, however, was less clear (p4, p9, p10): "They've got your preferences, but I'm not sure what they do with it then".

#### **The Benefits Exceed the Risks**

Generally, participants perceived handing over personal information for marketing purposes to be an acceptable trade-off for the benefits they received. While benefits were estimated to be small or good, costs were minimal: "The benefit seems very small, but I don't lose anything doing it" (p8) and "I get quite a good deal because I get money off things I would buy anyway" (p3). Some participants even felt the situation was a 'win-win' for both customer and company: "It's good of companies to do, they need to make money, and I can save in the process" (p2) and "It's a win-win, the business makes money and the customer gets something for free" (p7). Others felt any cost associated with sharing their data was manageable: "It doesn't bother me, which initially it did, but I give Facebook my data, at least I get something in return" (p5).

#### **The Risks are Manageable**

Visible side effects like 'junk mail' could be dealt with by 'opting out', 'unsubscribing' or 'creating a junk mail account' (p1, p7, p12). 'Opting out of everything' (p9) was more generally seen as a way to prevent companies from using their data for non-marketing related purposes, such as selling on consumer data to third parties: "Nectar may sell your info to other companies, no idea, I always opt out of direct marketing, I always read the privacy policy" (p3), and "I don't really mind them collecting data, but wouldn't want anyone to know, I always opt out" (p4). Another way of opting out was not to scan one's card when making sensitive purchases: "They might build a profile of you that I wouldn't necessarily want other people to see, if I was buying a pregnancy test for example, but I'm quite mindful that if I don't want to be tracked then I wouldn't use it, but I don't buy any of that" (p3).

#### **Benefits go beyond Rewards**

Some participants hoped to additionally gain from disclosing personal information, not simply by receiving rewards, but chiefly through a better, more personal shopping experience: "I don't think shopping data is valuable to me, it's valuable to them and you ultimately gain from that as a customer" (p4) and "It can be useful to get targeted ads" (p5). Some participants stated being



willing to provide extra information in exchange for a better shopping experience: *“If it was a shop I used a lot and I was interested in them selling specific things to me then maybe I would give them that information if it was helpful; it depends on the scheme and what you would get in return for giving them that information”* (p3).

#### **Unrealized Benefits**

Recognizing the potential of shopping data to improving their shopping experience but not seeing it manifest in the businesses’ practices was a significant source of frustration: *“I have never bought anything nor browsed the women’s section on the [department store] website so why are they sending me emails with this information? It’s of absolutely zero interest to me. It’s like that bad because no one’s put any effort into targeting that information towards me whereas at least when it’s targeted you think it might be useful. If it feels like someone is doing that for me and saving me time I’m like I’m happy with that trade off”* (p5). P9, too, is frustrated with receiving ‘vouchers that are pointless’, such as on products he has only recently or never bought: *“I am not in that positive feedback loop any more. I’m not going to pay more for products I can get cheaper elsewhere and give my data to you not to give me anything back that’s actually useful to me. If I had that data you should be doing what Google are doing. We are in the data age. I just can’t believe how bloody crap they are!”* Instead, he would like his data to be used to ‘speed out the checkout process’ and ‘make my life easier’: *“My ideal shopping situation with [supermarket] would be you’d go in and the self-service check out would say, ‘Please scan your [loyalty card]’, and you scan it and it would go, “Welcome [p9]!” and then all that data would be used to presume things about you”*, for instance, to populate shopping lists, get recommendations (‘We think you need to buy some potatoes tomorrow. Oh yeah, so I do!’), and saved settings (e.g. method of payment).

#### **DISCUSSION AND DESIGN IMPLICATIONS**

Our findings demonstrate that people’s interactions with loyalty cards are embedded in the mundane practice of shopping and whether they occur in the shop or online, they are routinized and situated in a distinct social and material environment, i.e. they are shaped by a particular shopping situation while drawing on the affordances designed into a particular loyalty scheme. For instance, participants would ‘normally’ scan their loyalty cards, unless a card ‘happened not to be’ ready at hand or because they have a ‘rule’ only to scan their card if they can receive points in return. It is thus these situated practices that also shape how retailers are able to collect data, or in the case of loyalty cards, whether or not they can link the data they collect to a customer’s digital identity.

The HCI literature on tracking and recording technologies has been much concerned with issues around privacy in data collection, processing, and use, and has called for more explicit engagements of users in the process. However,

consistent with prior research on loyalty cards [14] we found little evidence of privacy being a major concern to users or to affect whether and how loyalty cards were used in practice. Much more prominent than the *protection of privacy* were concerns over *creating value* through the sharing of personal data. In the digital economy, personal data has an economic value, but users are unclear what the exchange value of their data is because many data tracking schemes like loyalty cards are designed, implicitly or explicitly, to keep people ignorant of the mechanisms by which this value is created. On the interface side, receiving rewards is two steps removed from a user’s shopping activities, with points acting as the intermediary currency, while on the tracking and processing side, personal data is not so much shared with the retailer as co-created by both parties, yet with no user control over subsequent data processing and use. Together these mechanisms make it difficult for card holders to maximise the exchange and use value of participating in loyalty schemes.

In the following, we unpack how users create and lose value in the process from initial loyalty card adoption through to sharing rewards, and highlight points of design intervention. Specifically, we invite designers of tracking technologies to move beyond privacy to also consider the broader socio-economic terms of data exchange. We don’t mean to suggest that privacy is a non-issue. Rather we’d like to highlight that only some of the data that retailers collect users consider private. As much as users need support in protecting this data, they need support in sharing personal data to better harness the types of value that it generates for themselves and others close to them.

#### **Step 1: Linking Consumer Data to Identities**

Participating in a loyalty reward scheme usually involves no more than picking up a retailer’s loyalty card, which acts as a unique identifier, allowing retailers to link a customer’s identity to the purchases they make. In order to redeem rewards some retailers further require customers to provide demographic information, such as name, gender, address, email, etc. Linking a customer’s shopping data with demographic data enables businesses to directly contact their customers, e.g. with offers or promotions, or to derive additional personal information based on their age, gender, or postcode which can then be used for customer profiling. Signing up for loyalty cards is a layered process and can be arrived at through multiple channels (e.g. online, in-store, or both). Having to take the extra step of providing personal information during sign up means that some cards remain dormant or unused. In addition, while signing up online enables users to opt in and out of particular terms of service, we have seen that doing so in store is more problematic as customers may not have the opportunity to review them or deny an information request without breaching basic social rules of ‘compliance’, for instance.

*Thus, the circumstances under which customers sign up shapes the form of future engagement with a scheme.*



The privacy issues related to giving consent in the context of on-going and distributed data collection and processing have been discussed elsewhere [22]. Here we would simply like to add that in a retail context HDI designers and researchers may need to consider how service design and ‘human interfaces’, such as sales assistants, may change ‘the mode of interaction’ and affect the degree to which information and consent may be given voluntarily. Beyond understanding the privacy implications of data collection during sign up, however, we suggest that users also need to understand the *economic implications* of sharing their data - at the time of sign up and through on-going use - in order to make an informed choice about whether their loss of anonymity is worth the gain (financial or otherwise), and thus whether they want to sign up for the scheme in the first place.

*When signing up to a loyalty scheme online or in store users may need to understand the current and future privacy implications of sharing their data, as well as the potential use benefits of doing so.*

### **Step 2: Converting Consumer Data into Points**

The loyalty card also stores the customer’s loyalty points. Every time a customer makes a purchase, scanning the card links the purchase to the customer’s ID and updates her points balance on the card. Participants were rarely aware of the exact amount of points they could gain with a particular purchase. The lack of legibility with regard to how purchases translated into points led participants to apply a number of rules of thumb in order to decide whether or not to scan their cards, such as not to scan cards when the purchase amount did not exceed the threshold for collecting points. Under the accumulative or ‘points’ model (e.g. Nectar and Tesco) the perceived cost of scanning one’s card (either in terms of time effort or sharing one’s data) could be weighed off against the expected gain in a particular shopping situation. Under the discrete discount model (e.g. Waitrose) participants failed to establish these rules of thumb since assessing potential rewards under this model was not possible. Participants tended to scan their cards with every purchase so as not to miss out on potential rewards, thereby forfeiting their option to selectively opt out of data collection. A retailer’s ability to link purchases to individuals using a shopper’s credit card information in place of or as a complement to loyalty cards further undermines a user’s agency in selective data sharing [12].

*In brief, what personal data shoppers share with retailers in any given checkout situation may depend on the distinct affordances of the loyalty scheme, the sensitivity of the data shared, and the financial benefits of sharing their data.*

The checkout counter constitutes a decision point for users at which they choose whether or not to register their identity. However, it can also be a hectic as shoppers try to pack their bags while preparing to pay, etc, and doesn’t offer much scope for making informed choices. Currently the burden is on the user ‘to pay more attention’ regardless

of whether they want to protect their privacy or gain financially. In addition to understanding the privacy implications of sharing their data, users thus need clear information on whether and how much they can gain from sharing their data *in relation to a particular purchase and before scanning their cards*. While points balances and unique identifiers on receipts currently make it possible for users to review points credits before deciding whether to register the purchase online, doing so is also impractical. At the same time, designers may support users in ensuring they can use their cards when they benefit financially.

*Users may need to be able to predict the actual gains tied to a particular purchase in advance of exchanging personal data so as to be able to selectively opt out.*

### **Step 3: Assessing the Value of Points**

The accumulated points constitute a potential rather than actual value that has yet to be materialized. Some participants considered their points exactly that: rather than being a currency it was often considered ‘not real’ or ‘not mine’ until redeemed. We saw that few participants monitored their point balances. For one thing, points do not readily translate into rewards. This is because there is no simple ‘conversion rate’ between points and their value, and because the value of points fluctuates, much like that of a currency. Maximising one’s rewards thus required a considerable amount of attention and savvy from cardholders in order to identify rewards of interest and the best time to obtain them. Again, the burden of monitoring is on the user and clearly benefits the business.

*Points as an intermediary currency may obscure the real exchange value of points, and thus limit the use value a user can derive from participating in the loyalty scheme.*

Users need better support in keeping track of, not so much ‘points’, but potential rewards to support both planned and opportunistic redemption (see also [34]). For instance, enabling users to set personal goals, pre-select rewards of personal interest, and receive up to date information or notifications on when particular rewards become available should help users to continually assess the real use value of a particular scheme (and thus sharing their data) and maximise it, as well as offer them choices that are meaningful to them.

*Users may need to be able to monitor not ‘points’, but concrete rewards that are relevant to them both in terms of type and availability.*

### **Step 4: Converting Points into Rewards**

The rewards participants could receive through loyalty schemes were variously framed as ‘savings’ or ‘treats’ in relation to their general spending, and as ‘debts’ or ‘gifts’ in relation to their spending with a particular retailer. While the former framing largely depended on the participants’ particular financial situation, the latter reflects how participants saw their relationship with the retailer as mediated through the loyalty scheme. Participants largely

felt they were being compensated for their spending, rather than for sharing their data. This is hardly surprising given that, unlike monetary transactions, data collection is done invisibly in the background at no apparent cost to the user. Rewarding users in the form of goods rather than offering experiential value in the form of personalised customer services, further keeps data collection in the dark and strengthens the user's sense that 'my data is of no value to me'. Unredeemed points may further contribute to the economic gain of the retailer at the cost of the user.

*Points compensate users for their spending rather than data collection, maintaining the myth of personal data being 'worthless' to the user.*

In the pre-digital realms of everyday life, users understand that when selling personal property, its economic value is not so much determined by the use value it has to the owner (which will be close to zero), but by its exchange value. With data as a commodity, however, users are kept in the dark as to what the exchange value of their data is, as well as being denied access and control over the data they technically own. In order to negotiate true compensation for sharing their data, users need to understand the economic value it has *to the business*, as well as gain active control over what data to share when and with whom. There are significant opportunities for both the consumer and the business in moving the conceptualizations of value within loyalty card schemes from simple economics to one that acknowledges the co-creation of value, and the co-creation of value meaning. There is no simple solution to this problem as it raises more fundamental issues around the ownership and control over personal data. However, platforms like the Databox [15] may enable users to adopt ownership and control over the exchange of their data.

*Users need to understand the exchange value of their data in order to claim appropriate recompense when sharing it, whilst businesses need to move the rhetoric surrounding loyalty cards to support the co-creation of value.*

### **Step 5: Sharing Rewards**

Sharing loyalty card accounts enables users to pool their points, thereby potentially increasing (the choice of) rewards while reducing management costs. The ownership of points, i.e. the right to redeem points for rewards, was negotiated through the practice of collecting points. As rewards were perceived to be tied to a person's doing-the-shopping and spending, those having a bigger stake in the spending, and often those more knowledgeable about the scheme, claimed a bigger share in ownership. If however doing-the-shopping and spending was shared so was ownership. Shared ownership of points was further manifest in the way the redeeming of points was negotiated. Shared points would be redeemed on shared pleasures, even if the decision was made single-handedly. Sharing rewards thus enabled a shift from the pleasure of having received something for free to the pleasure of a joint experience, or the pleasure of giving a gift. At present, businesses are not

recognising the experiential value that consumers are exploiting.

*Pooling points and sharing rewards greatly increases the financial, experiential and social value that users may derive from participating in a loyalty scheme.*

While loyalty card schemes are currently designed for individual use, through sharing cards and accounts users have created opportunities for themselves and others to increase the use value of loyalty schemes for themselves and others. Users thus need more flexibility in collecting points collaboratively, as well as in sharing their points with others. For instance, users may want to collect points as a household, collect points for someone else, pass on their points to others (e.g. when moving house), combine their points (e.g. to 'afford' a particular reward), or to donate their points to charity. Finally, the rewards themselves clearly benefit from being shareable (e.g. food, experiences). More generally, the observed sharing practices point to a problematic underlying the notion of 'personal data' in the retail context. Even if retailers were able to track the shopping activities of an individual, some of the data they generate may be personal to the shopper, but it may also implicate others inside and outside the household as particularly in provision shopping many of the purchases will be for or shared with others.

Our findings are based on a relatively small sample and biased towards responses from women. Gender differences in the way people shop or value privacy may have some effect on the types of behaviours and orientations we observed. If so, our findings are likely to be on the conservative side as studies on credit card use suggest that men are less concerned about protecting their privacy than women [14], while generally being less involved in shopping [38]. Future work may aim to validate the generalizability of our findings to the wider population.

### **CONCLUSION**

In this paper we presented findings from an interview study with 12 loyalty cardholders in the UK, explicating how people's everyday shopping practices and orientations are shaped by the particular affordances of a loyalty scheme and contribute to the creation of value through the collection, processing, and use of personal data. We highlight user concerns, not so much with the protection of their privacy, but with deriving value from it. As personal data becomes part of the production of value, HDI designers need to support users in managing their privacy by withholding some data, while giving them a stake in co-creating value from data they are willing to share.

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