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The Haggle-O-Tron: Re-inventing Economic Transactions in Secondhand Retail

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ABSTRACT
Secondhand retail in the UK charity sector plays a number of important social and economic roles: charity shops are community focal points; money is generated for good causes; and goods are re-circulated that might otherwise be discarded as abject and unwanted. However, like much of the UK high street, the prosperity of charity shops is under significant threat from the rise of internet shopping. Access to online markets via smart phones equips customers to check prices for secondhand items, some customers then deploy information, usually from eBay, to haggle with shop staff. The *Haggle-o-Tron* playfully subverts both normative and emerging secondhand retail valuation practices by revealing secondhand goods' financial, moral, social and aesthetic properties. This paper reports on how we employ vibrant yet uncomplicated design interventions that embed the charity's values and ethos to reconfigure store-based economic transactions.

Author Keywords
Second hand retail; economic transactions; reflective design; ludic design;

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

INTRODUCTION
This short paper reports initial findings from an ongoing project within the UK's Digital Economy, Research in the Wild programme. The aim of the project is to explore how design can be used to probe and surface the practices and resources in the secondhand market. Although we draw upon design's more playful side we do this with serious intent and in the context of thinking through 'big' questions about the circulation of goods and its consequences for sustainability. The paper introduces the context of UK high street charity shops that sell secondhand items and the differences between a secondhand shop and a first hand shop. The paper examines the implications that this has for calculating and agreeing the value of one-off items. It is within this frame that an ethnographic study-led design exercise is presented. The ethnography identified a variety of techniques that consumers used to establish, reconcile and, in some cases, negotiate the value of items with shop staff. The study led to the development of a playful physical prototype that adopted a series of established design methods to reimagine the role of the things within the context of secondhand bargaining. The paper describes how the prototype explored the concerns of value construction, before concluding with a short reflection on the research.

CONTEXT - THE SECOND HAND OXFAM
The research is carried out in Oxfam's high street shops in the UK that operate as a place for the public to both donate as well as purchase secondhand items. Donating, buying, selling and receiving secondhand goods is a complex space of consumption, distribution and value [5]. Having developed expertise within the charity sector, Oxfam has a thorough insight into the economics of – to give one example – secondhand clothes' flow from in-shop purchases, redistribution to international aid programmes or reconstitution from rags into new clothes. Tracking and tracing systems are beginning to offer consumers more insight into the trajectories of products. Meanwhile the current economic downturn offers a difficult period for both consumers and industry to invest in sustainable initiatives. However, secondhand markets, which are inherently more sustainable, are booming. This places pressure on the

charity sector as surplus items are now traded for cash in the high street. Unsorted clothes can fetch on average 90pence per kilo. By contrast Oxfam can sell unwanted clothes at up to £9.30 per kilo in their shops. As a consequence Oxfam require innovative approaches to both boost the quantity of donations they receive and creative methods for ensuring goods are sold in their shops (rather than sold on to the rag trade). Here we will concentrate on the latter, though our larger study also examines secondhand things' circulation through other sectors.

EQUIPED TO CALCULATE

Recent sociological and anthropological studies of consumption, economies and markets have turned toward the local social and material practices that organize and extend 'economic activity' [3]. The local organisation of the market feature strongly in our own investigation of secondhand retail valuation practices. It has helped us orient toward how the materiality of those settings, and the resources participants are able to bring to bear, figure strongly in how things are valued and devalued. Crucially, the spaces where retail occurs, its paraphernalia (till, labels, receipts, machines, money) and its practices (window-shopping, window-dressing, handling goods and trying them on) do not form a passive scenic backdrop to economic activity; rather, they are central to and constitutive of economic exchange. Thus the design and layout of supermarket shelves, arrangement of goods, and signage all are geared towards engaging us with and normalising certain modes of consumption [2]. Arising from this perspective is the idea of the 'qualculations' undertaken by customers and retailers in which they combine price and qualitative properties as part of making rational judgements [3] . This work has that element of cost-benefit trade-off that feature in more abstract economic descriptions, but also and at the same time it depends more concretely upon the material qualities that perform such calculations. The tussle between purchaser and retailer plays out in part according to how well each is 'equipped' to calculate value, with the balance of power often lying towards the retailer:

"[I]rrespective of how strong the consumer's calculative agency that evaluates the attachment of goods to his or her own world may be, it remains weak compared with the calculative power of supply, which is highly equipped, at least in the case of mass retail." [3].

In this paper we explore the space, materials and practices that comprise retail within charity shops and find a picture that has a more complex moral overlaying than might be found in first hand retail settings [5]. Also it is a materially different setting comprised of many 'one-offs' rather than the recently mass-produced brands and lines that re-enforce the value ascribed to individual items in conventional retail. This has consequences for the strategies that customers and retailers alike can legitimately use to calculate value. In the next section we turn to our ethnographic study of secondhand retail practices, exploring some of these issues in more detail.

OXFAM AND 2ND HAND RETAIL

Through the summer of 2013, the research team developed an ethnographic study to inform the development of an intervention. Through observation, conversation and semi-structured interviews across several Oxfam branches, the researcher identified occasions in which the value of items were foregrounded. When customers contested a price, shop assistants and Oxfam volunteers began 'haggling'. To try and raise or lower the price each side provided information: its origin; its worth on eBay; its rarity; how convenient it was to be able to walk away it now, and its economic worth for Oxfam aid programs. On occasion, the shop assistant would lower a price to make a sale, but the research revealed that this was rare and against Oxfam policy, so despite the complex accounting that began to make visible the value of individual items and their worth for Oxfam's charitable works, the haggling didn't always end in a sale.

The use of smartphones to instantly access resources to help value an object, such as their price on eBay or Amazon Marketplace significantly improves how shoppers are now equipped to rebalance the asymmetry of calculative resources identified by Callon & Muniesa [3]. In fact, the online market places put significant pressure on Oxfam's pricing strategy for certain items (e.g. books) more generally as well as providing a basis for the customer to contest Oxfam's valuations.

With this observation in mind, the research team began to investigate the increase in haggling in secondhand markets and how it offers insight into present and future value chains. Below we spell out how this informed the development of a design intervention that enabled customers to negotiate toward a sale, drawing upon the sequences of haggling which found a price that allowed more sales to happen, but along the way helped do other work for Oxfam.

IMAGINING ALTERNATIVE ECONOMIC TRANSACTIONS THROUGH DESIGN

When questioning how we could disrupt calculative practices within Oxfam, we had a number of aims:

- To explore how in the face of low prices online, the balance of legitimacy in value calculation could be shifted back toward high street retail.
- To explore the sorts of resources that Oxfam can use in its value calculations, some of which trade upon charity retail's moral capital.
- To seek playful engagement with Oxfam customers in order to disrupt norms and conventions, enabling shopping practices to be both investigated and re-imagined.

- To surface and reflect back customers' and retailers' haggling practices as a basis for re-imagining how these might be performed in future.

Our design approach draws upon three existing design paradigms and tailors them to meet our specific requirements. Firstly we used ethnography to uncover the practices within their setting via the 'thick description' commonly used to inform interaction design. At this initial stage, doing this revealed the economics-in-action within charity retail and framed our design brief rather than the design of a concrete object. The brief that emerged is captured by the bullet points above. The second design paradigm we drew upon was 'reflective design' [7], aiming to provoke both Oxfam staff and shoppers to reflect upon their own values and practices when shopping or retailing second hand goods. This drew us to question how haggling could be brought into the repertoire of retail practices routinely used in an Oxfam store. As stated above, haggling was a *borderline* practice in our study - one that shoppers were leaning towards but that staff had yet to accommodate except in an ad-hoc way. Haggling deviates from normative UK retail practices where prices are typically non-negotiable beyond discounts in quite particular circumstances, and so often feels awkward or transgressive. It thus provided us with a disruptive element to enable shoppers' and retailers' to 'see' and question their normative assumptions about value and valuation practices. One particular intention was to 're-equip' Oxfam to renew their authority to calculate value within the boundaries of the shop by providing a mechanism through which past and future 'value chains' might be made visible and used as bargaining tokens in the haggling process. For instance, what the sale would eventually contribute to aid projects, or the provenance of an item as a rare and cared-for thing. The final source of inspiration was Gaver's 'ludic' [4] design, as we wanted our to have our intervention appeal to peoples' sense of fun, to be enjoyable, and in this atmosphere of playfulness to create a space where conventional notions of retail can be suspended and new forms of engagement explored. This led us to the idea of imbuing an ordinary household object with the ability to haggle as something surprising, engaging and fun. We will now explore the rationale for the concept of a *Haggle-o-Tron* that draws together these different design approaches.

DESIGNING THE HAGGLE-O-TRON

We settled upon a teapot as the physical form for our *Haggle-o-Tron* for a number of reasons. One was practical: it has an internal space that could accommodate the haggling mechanism. The second was that it avoided being anthromorphic, yet represented a very mundane household object regularly found within an a secondhand store, able to 'speak for Oxfam' without the inhibitions and preconceptions of interacting with a human spokesperson (e.g. a shop manager). Thus the teapot is an everyday object in a location where it might be expectably be found, but

doing something unusual. This also avoided the strong pre-existing cultural connotations that would be implied by a cartoon or toy robot. Instead the teapot presented something (somewhat) 'blank', its meaning as a thing to interact and haggle with being largely culturally undefined. This 'blankness' would allow participants freer rein to explore how to configure their interactional (and hence economic) practices. The design of a haggling teapot resonated with our interest in objects and the playful possibilities presented by giving objects capacities that they do not usually possess. Thus we equipped the teapot with a single 'eye', plus squeaks, grunts and whistles by which it could demonstrate affect, and a printout 'mouth' redolent of a till receipt that captures the haggle in real time, and playfully subverts the traditional role of the receipt.

Figure 1 Cartoon reconstruction of a haggle.

The first iteration of the *Haggle-o-Tron* involved a researcher engaging with shoppers through a video camera and microphone installed in the teapot. The researcher was able to communicate with the shopper by printing a receipt-

like paper stream. In the second prototype objects for sale were tagged with an RFID tag that could be used to trigger a branching narrative, unique to that item, that negotiated levels of value with the customer through printing more information. The customer is able to suggest higher or lower prices in response to the 'haggle'. The snippets of information imparted in the haggle constructed value chains from the past in to the future, such as **past**: stories of provenance similar to those found in the Shelflife / Tales of Things project [1], where the item was made or found; **present**: current prices on eBay, current Oxfam campaigns; and **future**: how many goats the product will allow Oxfam to give, or forthcoming events. This receipt also displayed the agreed price of the object and acted as a memory of the transaction.

PRELIMINARY TRIALS AND FINDINGS

Our initial trials have provided insight not only into haggling practices but into hailing customers to attract their attention. The haggling practices with the *Haggle-o-Tron* did surface accounts of the thing's value through its original manufacturer, its potential recipients and its appearance. Offers (e.g. '£3' in fig. 1) were not always accompanied by accounts though and could be just given as as minimal counter-offers. What we had overlooked in our original scenario was the importance of soliciting customers. The *Haggle-o-Tron* whistled and greeted customers making inferences from their proximity, their movement and whether they were carrying items. It becomes clear that customer's work is also about ignoring or avoiding being hailed. They initiated haggling once they were minimally committed to bargain for one or more goods.

Customers brought their familiar practices with retail barcode scanners and with Skype cameras to interacting with the device. There are then new 'showing' skills brought to dealing with devices that have cameras. As part of doing their haggling, customers expected to be able to point at features of their object, hold up fingers for value, smile to reinforce a plea and so on. This raises the ongoing problem of computer vision being able to recognize gestures, though within the limits of haggling as a course of action.

One unexpected positive quality of the *Haggle-o-Tron* was its immobility. Unlike the intrusive 'can I help you?' of sales-work, the device required customers to approach it in response to its solicitations. There are then clear possibilities for using proximity and motion sensors to make inferences about customers' openness to beginning a haggle.

CONCLUSIONS

In this paper we have investigated both how people value things in material settings that are pre-configured to legitimize some valuation practices and explored contrasting practices that subvert cultural expectations and norms. In our study we were able to use a playful desing approach with the serious purpose of 're-equipping' an Oxfam shop to encourage and explore haggling. The intervention begins to balance the customers' access to virtual markets with local inquiries into future and past value chains to secure reappraisal of the particular items to hand. The *Haggle-o-tron* blends together design approaches in a novel manner to help re-imagine secondhand retail transactions. The design study exploited the complexity that surrounds secondhand retail and charity sectors but through refined and easy to grasp processes that are linked to existing habits. This provides notable potential to provide insight for Oxfam, participants, academic fields, practitioners concerned with sustainability.

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