

THE UNIVERSITY of EDINBURGH

Edinburgh Research Explorer

The Haggle-O-Tron: design intervention in secondhand retail

Citation for published version:

Speed, C, Hartswood, M, Laurier, E, Magee, S, de Jode, M & Hudson-Smith, A 2014, 'The Haggle-O-Tron: design intervention in secondhand retail'. in DIS Companion '14 Proceedings of the 2014 companion publication on Designing interactive systems. ACM Association for Computing Machinery, New York, pp. 137-140., 10.1145/2598784.2602802

Digital Object Identifier (DOI):

10.1145/2598784.2602802

Link:

Link to publication record in Edinburgh Research Explorer

Document Version:

Publisher final version (usually the publisher pdf)

Published In: DIS Companion '14 Proceedings of the 2014 companion publication on Designing interactive systems

Publisher Rights Statement:

Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honored. For all other uses, contact the Owner/Author. DIS '14, Jun 21-25 2014, Vancouver, BC, Canada ACM 978-1-4503-2903-3/14/06. http://dx.doi.org/10.1145/2598784.2602802

General rights

Copyright for the publications made accessible via the Edinburgh Research Explorer is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

The University of Édinburgh has made every reasonable effort to ensure that Edinburgh Research Explorer content complies with UK legislation. If you believe that the public display of this file breaches copyright please contact openaccess@ed.ac.uk providing details, and we will remove access to the work immediately and investigate your claim.



The Haggle-O-Tron: Design intervention in secondhand retail

Chris Speed

Edinburgh College of Art University of Edinburgh Edinburgh EH3 2LE c.speed@ed.ac.uk

Mark Hartswood

School of Informatics University of Edinburgh Edinburgh EH8 9LE mjh@inf.ed.ac.uk

Eric Laurier

School of Geosciences University of Edinburgh Edinburgh EH8 9XP eric.laurier@ed.ac.uk

Siobhan Magee

School of Informatics University of Edinburgh Edinburgh EH8 9LE siobhan.magee@ed.ac.uk

Martin de Jode

CASA University College London. London W1T 4TJ m.dejode@ucl.ac.uk

Andrew Hudson-Smith

CASA University College London. London W1T 4TJ a.hudson-smith@ucl.ac.uk

Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honored. For all other uses, contact the Owner/Author. *DIS '14*, Jun 21-25 2014, Vancouver, BC, Canada ACM 978-1-4503-2903-3/14/06. http://dx.doi.org/10.1145/2598784.2602802

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. This demo presents the Haggle-o-Tron as a design intervention into an Oxfam secondhand shop that playfully subverts both normative and emerging secondhand retail valuation practices by revealing secondhand goods' financial, moral, social and aesthetic properties. This demonstration proposal is for a demonstration that will present both the design solution and documentation of its role within the ethnographic study.

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.

Imagining alternative economic transactions Through Design

When questioning how we could disrupt valuation practices within Oxfam, we had a number of aims: 1. 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. 2. To explore the sorts of resources that Oxfam can use in its value calculations, some of which trade upon charity retail's moral capital. 3. To seek playful engagement with Oxfam customers in order to disrupt norms and conventions, enabling shopping practices to be both investigated and re-imagined. 4. 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 second design paradigm we drew upon was 'reflective design' [2], 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' [1] 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 anthropomorphic, 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.

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 [3], 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.



Figure 1. Version 1 of the Haggle-O-Tron with thermal printer, microphone / speaker grill (on side) and camera peephole to support engagement with shopper.

The Haggle-O-Tron went through a further two iterations leading toward an autonomous version that allowed shoppers to engage into a negotiation with the device through the use of buttons situated on the side of the teapot. After attracting peoples attention through the signature whistle, participants were able to propose lower (black button) or higher prices (red button) for an item based upon an starting price proposed by the Haggle-O-Tron after a scan of the item's RFID tag. The Haggle-O-Tron would continue to communicate with the shopper through the thermal printer working toward a 'deal' at which point the green button would be pressed and the receipt could be taken to the shop assistant and the item could be purchased at the final price evidenced on the receipt.



Figure 2. Version 3 of the Haggle-O-Tron with thermal printer, RFID reader, speaker holes on top and buttons to support price negotiation.

Demonstration

The design team would like to demonstrate at least two iterations of the Haggle-O-Tron and documentation of it's use in store as well as example 'haggles' performed by shoppers. The demonstration will include a display of the Haggle-O-Trons and two video displays. Visitors will be invited to reflect on the project and interact with the Haggle-O-Trons to better understand the nature of the design interventions and the role in exploring situated valuation practices.

Conclusions

In this demonstration proposal we have introduced the context of the design study: secondhand retail and the requirement to develop a design intervention that would explore situated valuation practices. The proposal introduced the Haggle-O-Tron as a playful design approach with the serious purpose of 're-equipping' an Oxfam shop to encourage and explore haggling. The proposal briefly explored how 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.

Acknowledgements

The Internet of Secondhand Things project is funded by a UK Engineering and Physical Sciences Research Council, Research in the Wild grant and Oxfam UK. Many thanks to Oxfam staff and customers. Additional credits go to product designer Fionn Tynan-O'Mahony.

References

[1] Gaver, W. Designing for Homo Ludens, Still. In (Re)searching the Digital Bauhaus. Binder, T., Löwgren, J., and Malmborg, L. (eds.). London: Springer, 2009.

[2] Sengers, P., Boehner, K., David, S. and Kaye, J. 'J'. Reflective design. In *Proceedings of the 4th decennial conference on Critical computing: between sense and sensibility* (CC '05), ACM Press, (2005), 49-58.

[3] Barthel, R., Leder Mackley, K., Hudson-Smith, A., Karpovich, A., de Jode, M., Speed C. An internet of old things as an augmented memory system. Personal and Ubiquitous Computing, 17, (2013), 321-333.