ZYGO: DESIGN LED REFRAMING OF SECONDHAND MARKETPLACES

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ABSTRACT

Situated within a larger design research project studying the phenomenon of "premature disposal of durable products and increased resource consumption", my ongoing PhD research investigates ways to explore and develop new perspectives and framings of the practices of secondhand use of durable products amongst teens and young adults (16-27 years) for the mainstream uptake of secondhand marketplaces through interaction and service design proposals. For Nordes'17, I will present an experiential exhibit showcasing a new service proposal, 'Zygo' that re-positions the secondhand marketplace as a scaffolding to support and connect the youth in the transient, varied and yet complementary phases of their lives and helps them in managing their respective aspirations and needs.

DESCRIPTION

The practices of secondhand use offer a promising direction in mitigating the alarming rate of disposal and replacement of consumer products and consequently contributing to the overall decrease in the consumption of resources (Blevis 2007; Vezzoli and Manzini 2008). However, even with these practices having existed for quite some time, secondhand marketplace services continue to remain at rather niche adoption levels even today (Pierce and Paulos 2011). This exhibit presents a service proposal that re-situates secondhand marketplaces within localised aspirations, needs and practices as a means of increasing their mainstream uptake.

BACKGROUND

The promise of secondhand marketplaces with regards to sustainable consumer practices is motivated by the opportunities of optimising the lifetime of durable and functional consumer products (Manzini and Vezzoli 2003; Pierce and Paulos 2011). Product lifetime refers to the "measure of how long a product and its components would last under normal working conditions, maintaining its conduct and performance at accepted or even predetermined standard levels." (Vezzoli and Manzini 2008). Product obsolescence, on the other hand, refers to the condition and time when a product stops functioning optimally for its intended use (Cooper 2004).

A quantified view of optimising a product's lifetime and circumventing obsolescence discusses products primarily in the terms of their use and material durability (Vezzoli and Manzini 2008). However, many products end up getting discarded not because they are functionally deficient in some sense but because they reach the end of their psychological lifetime (Muis 2006) and are simply not desirable anymore. Consequently, product obsolescence is not merely driven by *use* but rather is an outcome of a combination of *psychological*, *social and technical dimensions* and therefore, necessitates a more holistic understanding that situates products as a part of people's aspirations and practices (Hinte 1997). Recent sustainable HCI literature has also noted the need for more holistic understandings within design approaches for sustainable consumption (Kuijer et al. 2013; Pierce et al. 2013). It underlines the importance of focusing on people's practices as a means of grounding design within the "complexities, interdependencies, and dynamism of the collective and cumulative actions we take" (Wakkary et al. 2013).

Elaborating on such a practice centric approach and discussing secondhand marketplaces as a quintessential means of re-situating products within the right context, Pierce and Paulos (2011) reframe the consumption of durable products through the practices of "*acquisition, possession, dispossession and reacquisition* of a particular material object". They argue in the favour of a holistic strategy that re-situates consumer products within the right psychological and social context as a means of optimising their lifetime.

However, while in theory, secondhand marketplaces present an innovative and potentially sustainable alternative to the firsthand marketplace, their perception and experience in practice is quite problematic (Gregson and Crewe 2003). My field study of current secondhand marketplaces and their users has highlighted that the design of these services emphasizes the discovery and sale of artefacts, with limited consideration towards people's local context and their practices (see Figure 1). This in turn influences people's perceptions and engagement with the service itself, who view them as akin to a digital classifieds service rather than a marketplace alternative, hence resulting in an unreliable, confusing and consequently unfulfilling experience**.**

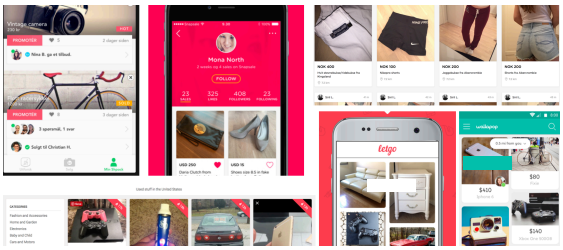

Figure 1: Collage of current online secondhand marketplaces depicting the isolated focus on products only.

Therefore, I contend that for secondhand marketplaces to become true alternatives to first hand marketplaces and establish new and de-centralised and localised consumer-consumer relationships, their practices and perceptions need to be challenged and re-framed both conceptually and through the design of alternate service proposals situated in a localised context (Manzini 2009)**.**

Encapsulating this conceptual framework, 'Zygo' is a service based on the localised practices of secondhand use and designed around the place, people, possessions (see Figure 5) with a focus on the practices and perceptions of the local youth (between 16 to 27 years) from Oslo, Norway. It is framed as a scaffold to the stages of life in which the youth are deeply invested in independently developing a sense of who they are and who they want to become in the future (Hanks et al. 2008). The main behavioural archetypes (Hartwell and Chen 2012) identified through my study were (1) 'youth at home' - teenagers interested in firsthand purchases and part time income sources, contributing to secondhand inventory, (2) 'busy frugal nomad' - managing shared and temporary living arrangements on a student budget and (3) 'steady independent mover' - with steady jobs to replace need based goods with aspirational ones. These archetypes in conjunction mutually create opportunities for the exchange of things, information and logistical help**.** Zygo has been designed to play a more apparent and effective role in managing this flux, through connecting the complementary practices, lifestyle aspirations and needs of the youth to enable the movement of durable products to a context of greater need (see figure 5).

ZYGO: THE EXHIBIT

Presented both as an argument and as a design outcome, 'Zygo' would be materialized through five interwoven digital, tangible and print based artefacts that constitute and communicate the form, intent and the overarching narrative of the service proposal (see figure 5). Due to the temporal aspect of services, in an exhibit form 'Zygo' will be presented as an interactive experiential snapshot showcasing the service as an existing real world offering. The exhibit would allow the audience to have a hands-on engagement through the following components in concert:

- **Service visualization:** Forming the printed backdrop of the ensemble will be a highlight of the pragmatic and aspirational values being offered by the service to the three archetypes (see figure 5).
- **Radius, interactive scanner:** This digital prototype simulates the interaction of aiding a user's negotiations with themselves, by giving a rough estimate of the value, supply and demand of a product through a simple barcode scan. It is designed to avoid having to tailor a query and search the inventory of secondhand marketplaces to estimate the probability of a successful transaction on the platform (see figure 2).
- **Print advertisement:** Shaping an imagery of Zygo as an existing service, print advertisements, stickers and badges will display the brand identity (Newbery and Farnham 2013), values and specific messaging of the service (see figure 3).
- **Mobile app prototype:** This is a key service touchpoint that is designed as a detailed interactive high fidelity app prototype for viewers to experience Zygo's online marketplace, community hub and transition planning services (see figure 6).
- **Concept video**: Played on a monitor, it is an animated narrative of a possible 'day in the life' of the users in this service (see figure 4).

OUTCOMES

Through a cohesive and experiential interaction with 'Zygo', this exhibit attempts to provoke reflections and discussions from design researchers and practitioners, in operationalizing an alternate positioning of secondhand marketplaces. I aim to utilize the material outcomes of my research as a reference to strike a dialog with the audience engaging with the display, regarding the challenges of designing secondhand marketplace services. I seek to invite queries and comments on both systemic and product based design decisions apparent though the elements of the exhibit, to advance the discussion on the implications of designing for and with localised practices, on the disciplinary methods of interaction and service design in the context of the youth and the secondhand use of durable products.

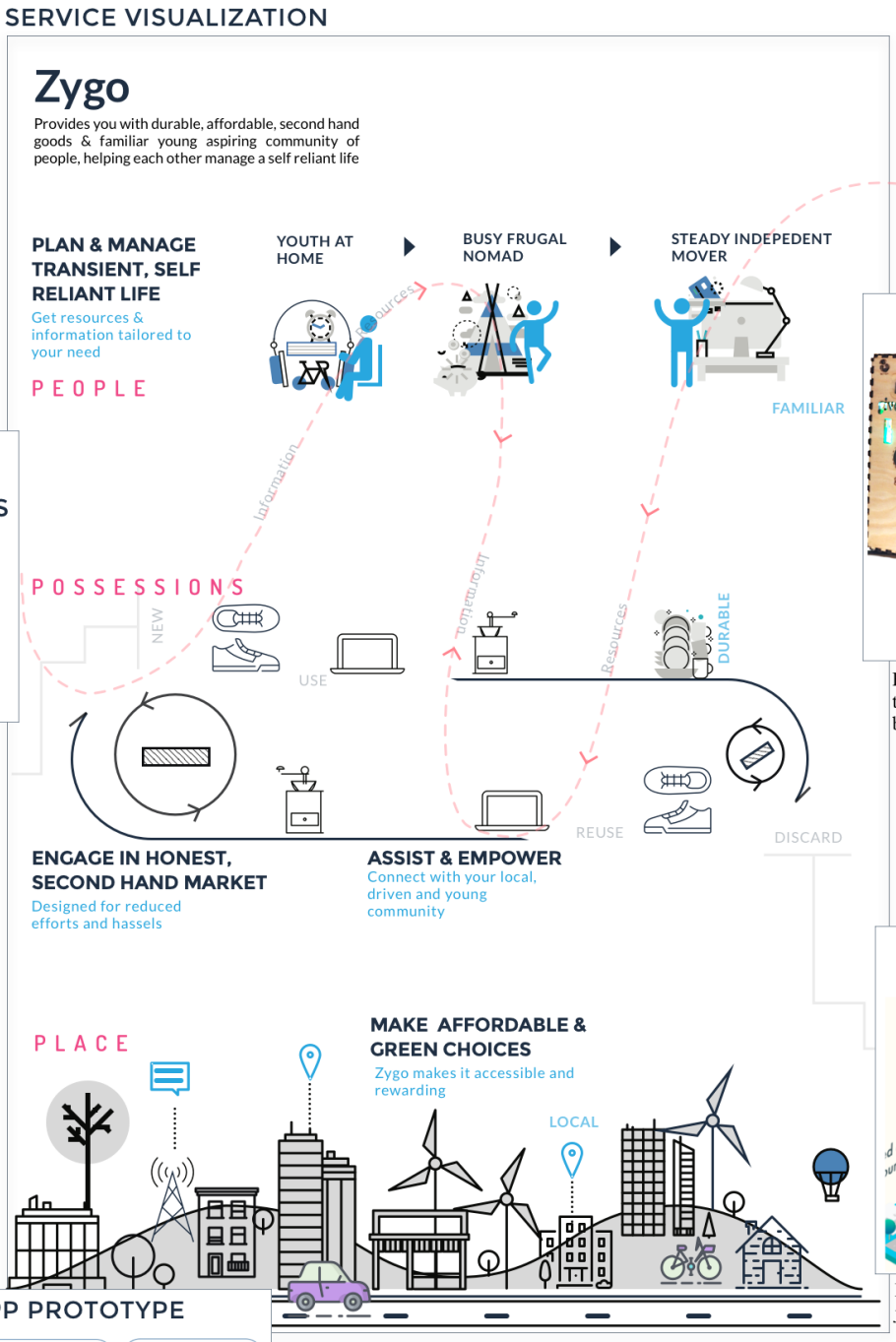

Figure 5: Service visualization. depicting value landscape of Zygo

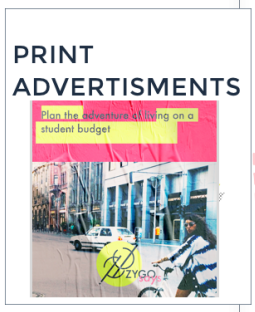

Figure 3: Display of brand identity and values through print medium

Figure 2: Digital prototype to aid the user's internal negotiations before engagement

Figure 4: Animated customer journey video

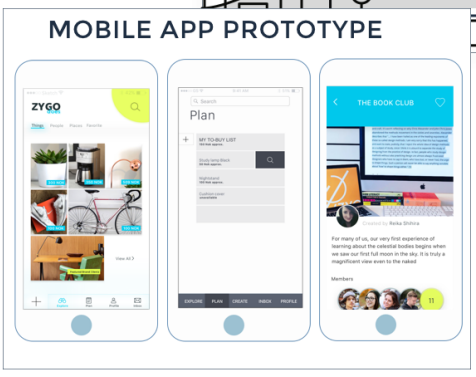

Figure 6: High fidelity mobile app prototype

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REFERENCES

Blevis, E. (2007) Sustainable interaction design: invention & disposal, renewal & reuse. Presented at the Proceedings of the SIGCHI conference on Human factors in computing systems, ACM, pp. 503–512.

Cooper, T. (2004) Inadequate Life?Evidence of Consumer Attitudes to Product Obsolescence. J. Consum. Policy 27, 421–449. doi:10.1007/s10603-004-2284-6

Gregson, N., Crewe, L. (2003) Second-hand cultures. Berg Publishers.

Hanks, K., Odom, W., Roedl, D., Blevis, E. (2008) Sustainable millennials: attitudes towards sustainability and the material effects of interactive technologies. Presented at the Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, ACM, pp. 333–342.

Hartwell, M., Chen, J.C. (2012) Archetypes in Branding: A Toolkit for Creatives and Strategists. HOW Books.

Hinte, E. van (1997) Eternally Yours: Visions on Product Design. 010 Uitgeverij, Rotterdam.

Kuijer, L., De Jong, A., Van Eijk, D. (2013) Practices as a unit of design.

Manzini, E. (2009) A cosmopolitan Localism: Prospects for a Sustainable Local Development and the Possible Role of Design [IN] Design studies: a reader, in: Clark, H., Brody, D.E. (Eds.), Design Studies: A Reader. Berg, Oxford, pp. 448–453.

Manzini, E., Vezzoli, C. (2003) A strategic design approach to develop sustainable product service systems: examples taken from the "environmentally friendly innovation" Italian prize. J. Clean. Prod., Product Service Systems and Sustainable Consumption 11, 851–857. doi:10.1016/S0959-6526(02)00153-1

Muis, H. (2006) Eternally yours, in: Verbeek, P.-P., Slob, A. (Eds.), User Behavior and Technology Development. Springer Netherlands, pp. 277–293.

Newbery, P., Farnham, K. (2013) Experience Design: A Framework for Integrating Brand, Experience, and Value, 1 edition. ed. Wiley, Hoboken, New Jersey.

Pierce, J., Paulos, E. (2011). Second-hand Interactions: Investigating Reacquisition and Dispossession Practices Around Domestic Objects, in: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, CHI '11. ACM, New York, NY, USA, pp. 2385–2394. doi:10.1145/1978942.1979291

Pierce, J., Strengers, Y., Sengers, P., Bødker, S. (2013) Introduction to the special issue on practice-oriented approaches to sustainable HCI. ACM Trans. Comput.-Hum. Interact. TOCHI 20, 20.

Vezzoli, C., Manzini, E. (2008) Design for Environmental Sustainability. Springer London, London.

Wakkary, R., Desjardins, A., Hauser, S., Maestri, L. (2013) A sustainable design fiction: Green practices. ACM Trans. Comput.-Hum. Interact. TOCHI 20, 23.