Re-tail: exploratory design for the marketplace of a circular economy

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Abstract

This research explores how re-designing retail services and experiences might enable customer participation in a circular fashion system.

Design for new materials, products, manufacturing processes and business models to enable extended use, reuse and recycling at the end-of-life are all active areas of circular economy (CE) research. Information technology is emphasised as an enabler of on-demand manufacturing and product-service-systems. Yet, with a hazy conceptualisation of the "end-user" (Okorie et al, 2018), how customers will engage with these complex new flows of goods has received insufficient attention. Many CE concepts rest on the assumption of widespread customer acceptance and voluntary behaviour modification (Lofthouse & Prendeville, 2018; Kuzmina et al, 2018), while the design of concrete strategies for customer engagement and behaviour change (Piscicelli & Ludden, 2016) are unaddressed.

Retail environments are designed to guide production of customer knowledge, promoting the desirability of acquisition, consumption and waste-making (Crocker, 2016) behaviours which drive the linear economic model. Design interventions by retailers can create new norms and consumption contexts which can strategically re-shape the market itself. Yet, there is a paucity of research discussing the CE consumer marketplace, the role of the retailer, and how customers will acquire the knowledge and skills needed to participate in such an ecosystem.

In industry, substantial resources have been directed towards developing enticing retail services which ensure that the customer experience is 'frictionless', 'delightful' and delivers instant gratification. Complex new behaviours have emerged that see customers browsing online and buying in-store, and vice versa. Yet, these services are based on a linear consumption model, while little attention has been paid to how retail services might be re-designed to enable ongoing circulation of goods and materials.

This research uses interdisciplinary design provocations to explore retail as a platform for consumer meaning-making, in the context of a service eco-system that enables circular flows of apparel goods. It endeavours to take an intellectually experimental approach that co-opts the tools of management to propose and faciliate alternative norms and lifestyles through the medium of retail. Rather than technological innovation, which often drives waste-making, the focus is on social innovation and co-creation that can enrich communities and drive cultural evolution.

The project proposes a human-centred, cultural approach to a circular fashion economy which engages people, not just as 'users', but as full participants in an expanded conception of value creation and sharing.

Keywords: Retail; Circular Economy; Design; Sustainability; Eco-innovation

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This paper discusses early stage research focused on retail sites as a "means of consumption" (Ritzer, 2005), a platform for consumer meaning-making and, more specifically, the role of design in shaping meaning-making

and consumption in a circular fashion system. A complex area at the intersection of consumption and production, the research draws on theories of design, economics, marketing, sustainable innovation and consumption culture.

Research area

A significant body of trade and academic literature is emerging, describing design for new materials, products, recycling technologies and business models. Predominantly, it presents an industrial design and management perspective, and assumes that consumer acceptance of new products and voluntary behaviour modification for product-service-systems will spontaneously emerge (Lofthouse & Prendeville, 2018; Kuzmina et al, 2018; Hobson, 2016). Many approaches are focussed on issues of production, and they "do not envisage new roles or recalibrated modes of engagement for the consumer, but rather rehearse the […] norms of the linear economy" (Hobson, 2016). Methods to dismantle consumer barriers, promote behaviour change, and create demand for circular models have been neglected (Piscicelli & Ludden, 2016).

Recent research begins to examine the consumer experience of circular goods, while neglecting the "means of consumption" (Ritzer, 2005) or method of acquisition. Wastling, Charnley & Moreno identify three customer experience phases, defining circular behaviours for in-use and end-of-life (2018) and disregarding the acquisition phase. Sinclair et al mapped design intervention points for circular products in literature (2018), finding almost no activities during the discovery and acquisition phases. Kalmykova, Sadagopa & Rosado compiled a database of 45 circular design strategies including only two retail methods (2018). Selvefors et al envisage "opportunities to design products so that it becomes easier for people to circulate products" (2019).

Retaining a focus on production and end-of-life, such perspectives overlook how re-use and re-manufacturing methods will require repeated interactions and new pathways across the producer-consumer interface. Lofthouse & Prendeville discuss user experiences of existing circular products, noting that "in practice, there are many points where designers need to consider the people using the service: at the point of sale […] and during any further interactions with a provider" (2018). Kuzmina et al describe a potential future two-way retailer in which "products, and the materials contained within, to flow back to the retailer from the customer […] in a mutually beneficial manner" (2019). How design can be employed to create contexts and opportunities for people to interact with a circular economic system remains a significant gap to be addressed.

The market and the means of consumption

The economy is a system of production and consumption. Conceptually and in practice, these two sides - supply and demand - meet in the marketplace. Thus 'the market' is both an abstract concept of political economy and a plethora of shops, malls, department stores, boutiques, high streets, outlets, websites and warehouses. These latter are the normalised settings for the transactions which have driven the consumption economy since its inception in the early 20th century.

In the existing production-consumption system, marketing is a tool of the producer, used to orient consumption to production. Mass production of goods requires the corollary development of marketing and retailing methods which promote mass consumption. In *Enchanting a Disenchanted World* (2015), Ritzer investigates these methods thoroughly, describing key practices and operational processes designed to increase control over delivery of both products and experiences. He identifies a process of rationalisation and commoditisation underpinned by ever-increasing efficiency, quantifiability, standardisation and automation. In order to combat "disenchantment" with fungible commodities, the "new means of consumption" uses the same rationalised methods to create spectacular, themed and simulated environments to attract, entertain and stimulate customers. This process of "re-enchantment" is central to the realisation of a "romantic capitalism", in which the subjective fantasies of individual customers are the drivers of mass consumption behaviour.

Meaning (and manipulation) as a driver of consumption

A significant body of literature details the history of advertising and its relationship to the development of consumer culture in the first half of 20th century. This intentional effort was intended to convince people that "they could satisfy their every need and desire, or overcome every fear, simply by purchasing products" (Muratovski, 2013). By the middle of the century, economist Ezra Mishan observed that "to continue to regard the market […] as primarily a 'want-satisfying' mechanism is to close one's eye to the more important fact that it has become a want-creating mechanism" (in Gabriel & Lang, 2015a).

In his seminal work 'Fashion', Simmel first described the cycles of desire and boredom, differentiation and imitation, adoption and abandonment of garment styles which remain operative today (Simmel, 1957). These processes work at incredible speed in the current fashion system. Fletcher & Grose acknowledge the destructive potential of this rampant fashion consumption to both the living world and the well-being of customers. Yet, they argue that such exploitation is only possible because of fashion's power to meet real human needs for identity, belonging and self-expression (Fletcher & Grose, 2012).

It's these needs that fashion advertising and branding appeal to and manipulate, transforming mass-produced commodity garments into meaningful signifiers of social status, prestige or affiliation. This logic, in which symbolic value replaces utility as the primary function of a good or product, is investigated and described by researchers of Consumer Culture Theory (CCT). This body of literature emphasises the participation of consumers, who "actively rework and transform symbolic meanings encoded in advertisements, brands, retail settings, or material goods" to construct desirable lifestyles and identities (Arnould & Thomson, 2005). Yet, advertising and consumerism simultaneously undermine their promises of happiness, creating envy and unhappiness in order to stimulate a never-ending cycle of disenchantment and consumption. This also relies on the active collaboration of the consumer through "waste-making", a process whereby the value of a previously bought item is discounted to nothing, justifying the next purchase (Crocker, 2016).

A personal essay by sustainable fashion journalist Alden Wicker demonstrates the power and importance of individual, subjective meaning-making as a driver of consumption behaviour. Wicker describes at length the complex meanings she ascribes to the spare buttons provided with garments: they are "aspirational", evoking a Scandinavian "snow day fantasy" of sleepy cats and mending in the "cozy, perfect, handcrafted home" of "a better person than I am" (2018). She contrasts her identity as a professional American woman with the roles and rights of other women in different times and places. A basic 5-minute repair has become imbued with layers of heavy symbolism, feminist politics and personal perfectionism. Wicker's reflections demonstrate consumption as "a very social act wherein symbolic meaning, social codes, political ideologies, and relationships are produced and reproduced" (Firat & Venkatesh, 1995). For Wicker, the value of the spare buttons is not in their utility, she doesn't use them. It's in the symbolic hope of sustainable living and personal betterment they offer – a vision available for consumption with new spare-button-toting garments. At present, the conceptualisation of value articulated by the CE discourse is limited to utility and exchange, and fails to address the crucial matter of individual, subjective value and meaning-making as a driver of consumption.

Value creation in the fashion system

The conventional management view is that firms create utility value for the customer through a variety of additive processes and capture value through exchange in the market. This is the model illustrated by Porter's value chain, (Porter, 1985) a widely applied framework which has entered the everyday vocabulary of business. It's underpinned by a goods-dominant logic in which value is embedded in products by the activities of firms. However, this does not correlate to a more complex understanding of value, which must include subjective meaning and the influence of cultural forces. In fashion, and many other markets, economic value is not embodied in goods but is a result of meaning-making. Mukerji observes that:

> "One cannot sell objects that have no meaning to other people. A wad of paper or a ball of fluff does not have economic value, unless adopted by an artist for an artwork or otherwise used as a raw

material. […] People need only find ways to make objects meaningful to make them economically valuable" (in Gabriel & Lang, 2015b).

In service-dominant logic, Vargo & Lusch offer a framework for understanding value and value creation which not only includes, but emphasises the role of the customer. The model contends that services, not commodities, are the basis for exchange between networked market participants in a collaborative service ecosystem (2015). A foundational axiom declares that "value is always uniquely and phenomenologically determined by the beneficiary" (Vargo & Lusch, 2015), an assertion that acknowledges and emphasises subjective consumer meaning-making as the source of market value.

Further elaboration of the theory has moved towards a broader systemic view of self-organising actors interacting in the market. Coordination between actors is guided by institutions and institutional arrangements: informal and emergent structures which facilitate collaborative value creation. Institutions provide actors with a common set of "rules, norms, meanings, symbols, practices and similar aides to collaboration" (Vargo & Lusch, 2015). Institutional arrangements – "interdependent assemblages of institutions" (Vargo & Lusch, 2015) – establish routes for value creation across institutions and industries.

Examining fashion through the lens of service-dominant logic, we may broadly identify the layers of actors and organising phenomena that together form the fashion ecosystem. The cycles of fashion are encoded in and expressed through the institutional arrangements that govern the industry. These are famously described in the cerulean sweater monologue delivered by the character Miranda in The Devil Wears Prada. Miranda explains that the fashion system is a hierarchy of designers, retailers, producers and cultural intermediaries operating in an informal yet coordinated system of creation, curation, promotion and distribution. Designers, customers, brands, manufacturers, raw materials producers, retailers and the fashion press are all actor-participants in the system. Institutions, such as retail and the fashion press, are governed by conventions and norms which participants understand and conform to.

Retail as market coordinating institution

In industry, retail operations tend to fall under the purview of marketing departments alongside advertising and branding. This reflects a view of the retail site as a flagship showcase for the brand (Kent, 2007). However, as the interface between production and consumption, retail sites are the venue for market transactions. It is a non-optional function.

Retail sites, both physical and digital, are designed environments and the stage-setting for acts of consumption. Operating at the interface of production and consumption, retailers are powerfully placed "focal firms" with access to influence both parties and interactions (Dewick & Foster, 2018). Researchers have shown the effectiveness of retail strategies including information and labelling (Hyllegard et al, 2012), choice editing, support with product maintenance and recycling services (Goworek et al, 2012; McLaren et al, 2015).

The institutional conventions and established practices of retail enables consumers and producers to participate in the consumer marketplace through standardised interactions and roles. The choreography of these interactions is governed by the design of the retailer and the arrangement of rules and conventions it employs. The design of a retail operation determines:

- What type of goods are available and on what terms (Chaney, 1983; Entwistle, 2006).
- How goods are presented and packaged for the customer (Chaney, 1983).
- The normalised set of interactions between the customer and product or producer (Chaney, 1983).
- How transactions are executed between producer and consumer (Chaney, 1983).
- Which producers are eligible to participate and on what terms (Entwistle, 2006).
- Which consumers are able to participate and on what terms (Chaney, 1983).
- The information and feedback exchanged between producer and consumer (Entwistle, 2006).

- The availability of supporting services and how they are delivered (Bäckström & Johansson, 2006).
- The presentation of cultural context and semiotic codes which give the customer clues, information and context about the symbolic value of goods (Brooks, 2015; Kent, 2007).

Broadly, the nature of the institutional conventions of retail are operational and informational. Operational practices determine who participates and what types of interactions are conducted. The informational context of retail settings influence and guide meaning-making, which is foundational to the consumers' phenomenological determination of value.

Retail as an informational setting

The design of retail settings carries a wealth of information for customers. Consumers rely on conscious and unconscious informational shortcuts and cues provided by retail settings to aid their decision-making and product evaluation processes (Baker, 1998). This applies equally to physical and online retail settings.

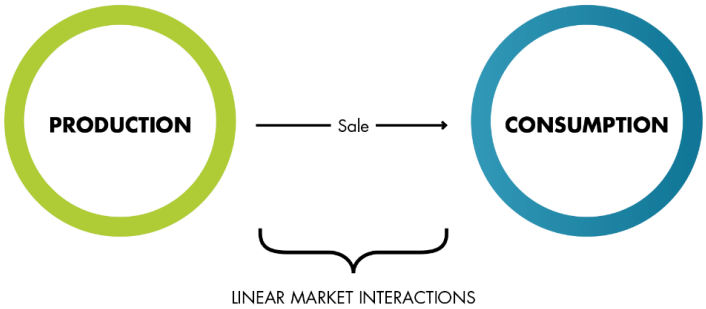
In "Understanding markets as places", Sherry emphasizes the importance of place, semiotics and phenomenology, drawing attention to the "ritual nature of retail theatre" and the "absolutely pervasive nature of the influence exerted upon consumers by the built environment of marketing" (1998). Brooks describes fashion retail stores as "spaces engineered for consumption, and prime examples of how place is a source of potent symbolism infusing [garments] with imagined values, depending on how the garments are presented and how the store itself is dressed" (2015).

Online, the information environment becomes more complex. Retailers continue to make use of imagery and symbolism, employing photography, influencers and lifestyle-related content to guide consumer meaning-making. Significant resources are directed toward the creation of hedonic, "frictionless" and "delightful" (Google, n.d.) customer experiences. Complex omni-channel behaviours have emerged which see customers seeking information online then buying in-store, and vice versa. Retailers and advertisers increasingly rely on technology to surveil consumers, creating a computer-mediated interaction infrastructure which produces guaranteed outcomes through information asymmetry and coercive behaviour modification (Zuboff, 2015).

Retail as an operation

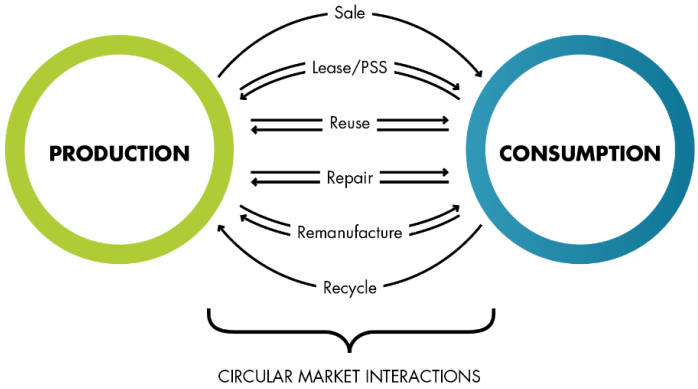
The basic operational function of the retail interface is to conduct a very specific type of interaction: the sale or purchase. In the consumer-driven economy, this is the driver of economic activity, around which the entire production-consumption system is oriented. It may be visualised as a one-way transfer from the sphere of production to the realm of consumption.

Figure 1: Market interactions in the linear economy



In a CE, the sale is merely one of many types of market interaction. Product-service systems (PSS) are proposed as a way for firms to retain ownership of products and materials for maintenance and reclamation. Reuse and extended circulation of goods through multiple owners or users is recommended. Repair and maintenance will extend product lifetimes. Remanufacturing cycles parts and materials through additional production to maximise the utility of components. Finally, recycling returns materials for new processing. This array of interactions requires multiple pathways between the spheres of production and consumption.

Figure 2: Expanded market interactions required in a circular economy



Research questions

Given the goal of shifting the production-consumption system to a CE model, addressing the role of retail as the interface between consumption and production is vital. The realisation of a circular fashion system requires the adoption of new practices and contexts which can expand the set of normalised market interactions.

Q1. What operational services and informational contexts are required for consumer participation in the expanded market interactions of a circular fashion system?

Q2. What barriers and opportunities do customers perceive in relation to the roles and practices of a circular fashion system?

Q3: How can retail sites, services and experiences be redesigned to realise a circular fashion system?

Speculative retail design

The related approaches of critical and speculative design offer a method for the interrogation of the normalised socio-cultural practice of shopping and its relationship to proposed circular business models. Critical design practice aims to illuminate normalised socio-cultural assumptions and interactions; while speculative design proposes alternative future scenarios that may arise if specific policies are enacted, technologies adopted, or social trends cohere into long-term organising principles (Dunne & Raby, 2013). While Dunne & Raby's approach is focussed on how a set of human interactions can be defined through product design, they acknowledge that the framing of objects – in a gallery or the consumer marketplace – defines how they are understood. This opens the possibility of employing critical and speculative design practice to interrogate the settings of the marketplace itself, by proposing new retail environments that enable alternative interactions and relationships between producer, product and consumer.

Design can address both the operational and informational aspects of the retail environment. Established service design methods offer a variety of frameworks for developing new operational mechanisms that would enable circular interactions. Identification and definition of participants, touchpoints, needs, and experiences can enrich the offerings of circular fashion business models. Crucially, making new circular behaviours and interaction accessible and achievable requires customers to adopt both new codes of meaning and modes of participation. The consumer value identification process can be "'reframed' through design representation by using favourable codes" to change the meaning of consumption choices (Santamaria, 2016).

Such investigations are relevant to interrogating the conceptualisation of the CE and the feasibility of realising a functional CE. Critical and speculative retail design proposals can test the assumptions inherent in many conceptualisations of the CE, locating both barriers and opportunities for customer participation.

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