

Creating alternative frames for a retail security problem:

An application of Dorst's Frame Creation model

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Abstract: This paper describes and reflects on the application of Dorst's Frame Creation model [1] to the problem of retail theft from fitting rooms in a project with a large department store retailer. The project was the core design task for three students in a 13 week elective offered in the Master of Design course at the University of Technology Sydney. Through applying the frame creation model in this project what initially presented as a shallow, simple problem emerged as being linked to broader themes in the business. In this broader context the design team was able to identify themes and create a frame which opened up opportunities for resolving the problem. This project highlighted the potential value of looking beyond the normal frames of security practice to explore the opportunities for loss prevention in the broader themes and drivers in the organizational and business context.

Key words: *Frame Creation model, department stores, crime, design thinking*

1. Introduction

Over the last decade retail has become an increasingly complex, networked and competitive business environment. Large department stores – who have traditionally traded off the strength of an established brand and the capacity to offer extensive in-store product ranges – are being challenged by alternative online and networked retailers. These large bricks and mortar retailers are facing tighter profit margins, leading to pressures to reduce costs and find new ways to capitalize on their assets. One considerable cost for department stores is 'shrinkage', (or product losses) through customer or employee theft. Security managers in these organizations are being asked to develop new ways to reduce shrinkage – but with the proviso that these measures do not reduce sales. This can be a challenging task for the organizations' security managers who have typically relied on 'off the shelf' counter-measures such as security tags and cameras that often detract from the shopping experience.

In this paper we describe a project that began when a security manager of a major department store engaged a design team from the Designing Out Crime (DOC) research centre to investigate the problem of theft in fitting rooms. The project was the core design task for three students in a 13 week elective offered in the Master of Design course at the University of Technology Sydney. Led by an industrial designer and an environmental psychologist (the first author) from DOC, the three Masters students all with undergraduate degrees in industrial design formed the design team. Managers at the state and national level of the large department retail store were the client in the project. The project is unique in that it is one of the first to explicitly apply Dorst's [1] Frame Creation model to a design project. The involvement of experienced design graduates in the four-month course also allowed DOC the opportunity to explore engaging graduate students in Frame Creation.

The primary objective of this paper is to describe and reflect on the application of Dorst's Frame Creation model to the problem of theft from fitting rooms in large retail stores. It seeks to contribute to the emerging literature on the Frame Creation model by providing a detailed, illustrative example of its application. This paper also seeks to demonstrate how new opportunities for resolving security problems can be found by exploring the broader problem context.

2. Frame Creation model

The Frame Creation model presents as a general framework of activities to guide the processes of knowledge development and transformation around a problem-solution space. Originating in the study of expert designers' work practices[2, 3], these activities are conceived as being the precursors to design innovation and development[1]. The 9-step Frame Creation model shown in Figure 1 is the formal articulation of the framework. Reflective movement back and forth between steps is considered integral to the process (i.e. coevolution[4]); however, also evident in the framework is a purposeful sequential element where some activities are placed before others. This sequencing facilitates a process of zooming in to obtain a rich understanding of the problem context as it is presented, then stepping back to identify and sit with conflict and uncertainty in this problem context while moving on to broaden out the problem field. A deep analysis of common themes in this broader field is undertaken to identify potential frames that resonate with the context and provide new opportunities for resolution of the problem.

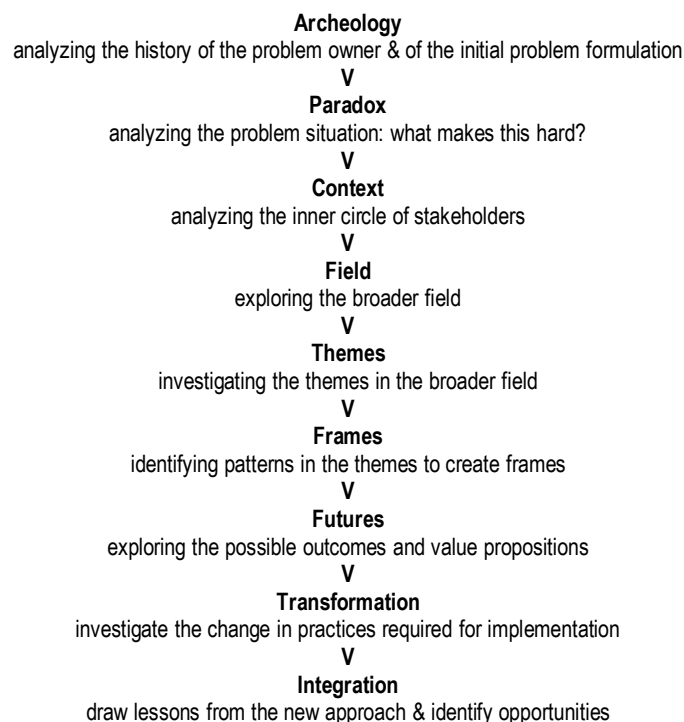


Figure 1: Frame Creation steps

A more detailed description of each of the steps in the model is provided in Dorst's paper also submitted to this conference[1]. In this paper Dorst presents an agenda for the development of the Frame Creation model into an innovation methodology. He also acknowledges in its current form the model is only a relatively bare backbone of what would be required for the approach to be considered a methodology. As such, the application of the Frame Creation model in this project needs to be considered exploratory. At the time of the project, early

in 2012, Dorst had not yet specifically published on the model. Its application to the current project was the result of the first author's exposure to discussions and workshops on the model at DOC, participation in the Opera House project (Dorst, 2013) and access to initial draft chapters from Dorst's forthcoming book.

2. Project background

As previously mentioned, this project was the primary design work for three students in a 13-week elective offered in a Master of Design course supported by two studio leaders. The concepts and initial designs generated in this project (and reflected upon in this paper) are attributed to Christana Addison, Jihee Min and Sandra Camacho. At the beginning of the subject the graduate students were given an overview and background to the Frame Creation model. Steps in the model were then explored in studio sessions throughout the course and used as structure to guide and motivate design research in the project.

The project client was the national general manager and a regional manager responsible for loss prevention for a large department store retail business. The business has individual department stores in all states and sales over 3 billion dollars per year. The project focus for the client was theft from fitting rooms in their retail stores. Fitting rooms, also called dressing or changing rooms, are provided in the department stores so that customers are able to try on clothing when making purchasing decisions. In the company's typical store, fitting rooms are located around the perimeter of the selling floor, with an entrance into a hallway that visually separates between 4 and 10 individual dressing room booths from the selling floor. In the larger stores there could be as many as fifteen separate fitting rooms. Historically, a staff member was assigned to a fitting room at all times, however due to the associated costs in the last 10 years, this has occurred sparingly during limited peak-trading periods. The fitting rooms have a conventional, modular design aesthetic, not dissimilar to that of many other large department stores.

3. Methodology

The overarching methodology for this paper is a reflective case study [5]. This approach is specified since the first author was a studio leader in the project and some of the data used are his reflections of the process and outcomes. Data was also obtained by analysing the documentation created during the project, including the project brief, graduate student research reports and presentations. The graduate student members of the design team were given the opportunity (after the completion of the course) to review this paper and clarify or correct any of the information. The concepts and initial designs generated in this project (and reflected upon in this paper) are attributed solely to these graduate students. As well as the students, the project client was given the opportunity to review the paper to make corrections and ensure appropriate confidentiality for their business. A formal ethical approval process was undertaken and consent obtained from all those involved in the project.

In the next section the reflective case study is presented – we use the 9-step model as a framework the presentation of the project. For each stage of the model we provide comment on the *activities* undertaken by the design team, a *description* of the type of thinking and development of ideas in the stage and then some *reflection* of the value, challenges or implications of the stage. It should be noted that while, for the purpose of this paper, these stages are described in a linear fashion, the actual process undertaken by the design team was less compartmentalized. Movement back and forth, integrating new information or clarifying assumptions made at different stages of the model was a constant process. It also needs to be stated that while the narrative is written

here as if that of a collective design team voice, the reality was that multiple individual voices came together into an agreed team narrative towards the end of the project. The scope and focus of this paper did not enable exploration of such differences between team members.

4. Applying the Frame Creation model

Archeology analysing the history of the problem owner & of the initial problem formulation

Activities: The problem archeology was explored during the first three weeks of the project. This stage included on-site briefings with the client at two stores; discussions with store staff and police about different methods used by thieves; and access to comprehensive organizational data on shrinkage and detailed loss prevention strategy documentation. The client provided background information about how the problem was viewed more broadly in the organization and commented on the effectiveness of current strategies. In addition, the design team explored the international practice literature and research on loss prevention in large retail stores.

Description: The problem presented to the design team was the theft of clothing items by customers via the private fitting rooms, where security tag(s) could be removed and/or garments concealed, permitting thieves to leave the store with undetected stolen items. While the department store sells a broad range of goods including electronics, stationery and home wares, internal administrative data identified that the most common (and most costly) product loss category was clothing stolen using offending techniques associated with the fitting rooms (i.e. removing security tags). At one of the company's largest stores alone, tens of thousands of dollars of clothing is stolen per week. While repeat career offenders are associated with a substantial amount of theft, people engaging in occasional, opportunistic offending cause the vast majority of losses. From the security managers' perspective, the fitting room is a place in the store where the customer-cum-thief has 'control' due to the need to afford regular customers a private, safe dressing room with a lockable door to try on clothes and make purchasing decisions.

Compared with similar businesses internationally, the company's loss prevention practices and procedures are regarded as some of the best in the industry. Strategies currently used to reduce and prevent theft include specific security products (extensive CCTV network, convex wall mirrors, security tags), uniformed and undercover security, joint operations with police, a 'known repeat offender' strategy and a comprehensive program to motivate and educate floor staff to assist in the prevention and detection of theft. All clothing items in store have at least one security tag (ranging from basic radio frequency to 'screamer' and ink-deploying tags), with some items having up to three different security tags. These tags are designed to be 'tamper proof', yet the more basic tags can usually be removed by stretching or tearing garments, while more sophisticated tags can be removed using information (or devices) available from the Internet[6]. Collectively, these measures no doubt reduce the organization's total product loss, but the losses remain substantial, running into tens of millions of dollars each year, and the measures themselves come at a price.

Tightening profit margins, however, have led to renewed interest in loss prevention by the executive management in the organization. Loss prevention is increasingly regarded as an important potential area for improving the organization's budget bottom line, and executive management look to security and loss prevention managers to come up with ways of reducing loss. However, the loss prevention managers felt that their ability to have additional impact on theft from fitting rooms using standard security techniques and available resources was limited. Employing trained customer service staff (not security specific) in the fitting

rooms was potentially the most effective loss prevention approach, but the business could not support the costs associated with these additional staff. A number of other available security products (sophisticated RFID systems; additional signage; display systems) could potentially decrease shrinkage but their purchase price and potential negative impact on sales were considered to outweigh any gains. Reducing shrinkage was an important objective, but ultimately the organization's executive focus remained fixed on maintaining and growing sales.

Reflection: The depth of information provided by the client was important in enabling the design team to develop an understanding of the genesis of the problem within the organization and building empathy for the client's perspective, which provided a strong foundation to explore new ways of approaching the problem in the design process.

Paradox analyzing the problem situation: what makes this hard?

Activities: After developing a thorough understanding of the fitting room theft problem for the client, the team attempted to step back and reflect on what conflict or paradox was underlying the security management's difficulty in resolving this problem. A studio session was spent throwing different ideas around between team members, trying to find the problem with how 'the problem' is understood in the organization.

Description: Underlying the fitting room theft problem were a number of dilemmas or conflicts for the client and organization. After consideration, it became clearer that the core paradox for the security management client and the organization related to a conflict between the two beliefs held in the organization about measures or solutions for reducing fitting room related theft:

Improve profit margin by security employing additional loss prevention measures in fitting rooms	◀ ▶	Typical loss prevention measures in fitting rooms impact negatively on sales and profits
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For security management, this conflict meant that although they were responsible for loss prevention within the organization, they felt unable to draw on their knowledge of traditional security products to resolve the problem. Security management were the duty-holder for the fitting room theft problem within the organization, while sales and marketing were the primary duty holder for design and operation of the fitting rooms. In addition, as this view was held more broadly within the organization, attempts by security management to suggest ways of preventing product loss tended to be met with resistance due to concerns around the core sales business.

Reflection: The explicit process of trying to identify the paradox underlying the client's difficulty in solving the problem did not come easily to some team members. Rather than taking a traditional design consultant role of solving the problem presented by the client, this stage required the design team to identify the bigger problem without a real sense of how to solve it. It created greater uncertainty of what the project would actually entail, but also freedom to look outside the problem-solution space originally defined by the client.

Contextanalyzing the inner circle of stakeholders

Activities: Leaving this paradox aside, the design team then focused on articulating the inner stakeholders who, along with the loss prevention and security management duty-holder, had an interest and influence in the problem context. The various stakeholders and their associated core values were mapped in various configurations to explore relationships between them.

Description: Within the organization, key stakeholders of the problem space included other business divisions such as sales and marketing (turnover and brand), finance (profit), corporate strategy (growing the

customer base) and facility planning (store environments). As a long-standing and successful retail business with a broad customer demographic, the organization has developed a conservative but modern brand image that provides sales value in the marketplace. The organization has a strong focus on developing the established brand to increase sales.

Beyond the corporate divisions are important on-the-ground stakeholders in the individual stores, such as customer service staff, security and store management. The key concern for customer service staff is sales and the presentation of products; their time is typically split between the floor display area, checkout and the fitting rooms. Loss prevention is also promoted as an important aspect of their role but, as previously mentioned, there is not the financial capacity for staff to be stationed in the fitting rooms. Each store also has dedicated security staff. They too have multiple responsibilities within their role and limited capacity to focus attention on the fitting rooms.

Outside of the organization, key stakeholders include the management and security bodies of the larger shopping centre within which the department store/s are located; and the Police, who run joint operations with store security and, when an alleged theft occurs, investigate incidents as reported by security staff.

Reflection: Exploring the organizational context and the inner circle of stakeholders was the first stage of looking beyond the specific fitting room problem to understand the drivers and values of stakeholders close to and/or influential in the context. Mapping the organizational stakeholders was critical for the design team to understand the broader core values and concerns within the organization. While the security management client was necessarily concerned with preventing product loss, as a retail business the primary concern was increasing sales and building the customer base.

Field exploring the wider context

Activities: Investigating the field was a process of expanding the context wider still, to consider the retail sector generally, all the businesses and entities this sector comprises, as well as the values, challenges, developments and trends occurring in the sector. It also involved looking more broadly at the fitting room space – focusing on the experience rather than the functionality. Questions were asked about what factors were changing, influencing and creating opportunities for how retail organizations are structuring and steering their businesses. The design team also engaged in another round of research to explore the popular and practice literature related to the context.

Description: As the design team recognized, much of the complexity of this situation can be summed up in the much-changed and ever-changing nature of the relationship between the retail sector and its customers. In a business where customers are all-important, understanding current and future customers of the department store is a critical field of interest.

Department stores, like with all bricks-and-mortar stores, are under increasing pressure from alternative online and networked retailers who have significantly increased competition in the marketplace. And while bricks-and-mortar retail store sales were flat or declining, online retailers continue to experience a sharp growth in sales. This phenomenon reflects a growing preference among customers for online shopping generally, but also for multi-modal shopping, in which the in-person shopping experience is enhanced or supported by online/mobile shopping technology – for example, where customers use smart phones to store information/ideas and obtain advice, as well as to find online prices for the same items.

In this environment, physical stores have had to scramble to adapt. Most department stores, including the subject organization, are starting to offer a multi-modal experience, to integrate online selling and social media networking more fully into the business and marketing strategies. This is a new way of interacting with customers for these traditional, established organizations. It involves increasing ‘touch points’ – opportunities for connection and communication – between themselves and customers. Within the realm of physical retail stores, the idea of increasing touch points for getting shoppers’ attention has led to the rise of experience centres (e.g. Apple stores), concept or flagship stores (e.g. Prada; Nike)[7], where the physical store becomes a touch point in a broader and more heavily branded shopping experience, and the aim of the physical is to showcase, entrance and entice, rather than necessarily to sell.

Physical retail shops have also sought to locate their point of competition, their unique advantages in the shopping experience. As the design team recognized, the primary advantage of in-person shopping is in the tactility, physicality, immediacy and comparatively sociability of the physical shopping experience: the opportunity to touch and feel, to be assisted and served; and, crucially, to test-drive before buying. In the apparel sector of the business, test-driving involves trying garments on. By this line of thinking, one of the unique advantages of a physical shopping experience is to be found in the fitting room – the very location where the majority of in-store theft was occurring. Indeed, studies have shown that fitting rooms still offered a leverage point for bricks-and mortar stores in the tense competition with online retail: research on purchasing behavior in department stores indicates customers who try on clothes are 67% more likely to buy them than customers who do not try on clothes[8].

The design team considered the traditional role and use of fitting rooms and their users. Necessarily private to protect shoppers’ modesty, fitting rooms in the department store context nonetheless almost always include a lounge or foyer area. This area, ostensibly for waiting and thoroughfare, also offers some promise of the opportunity for semi-public display. In a typical fitting room scenario, a shopper steps out of the cubicle into the lounge area wearing a new garment, and asks their shopping companion/store attendant how they look, whether they need a new size etc., before disappearing back into the cubicle and emerging in something new. While some shoppers want to try garments on privately, many others get genuine gratification from the ritual of dressing privately and then being appraised by others; of stepping out into the common area – where there is often a larger mirror and more space to promenade – and perhaps even of having strangers admire them. This, as the design team noted, is a kind of pleasure that can only be had in a store environment, particularly that of a department store (with a necessarily larger fitting room area)[9, 10].

Reflection: Exploring the field was a process of being deliberately expansive. It required the design team to investigate the drivers, changes and trends more broadly in the retail sector. Much of the team’s discoveries would have undoubtedly been familiar to staff in marketing, sales and corporate strategy within the organization. Strategically the organization was open to responding to these opportunities – although not specifically with relation to the fitting room space. With tightening budgets the organization was focused on other, more visible areas of the business. The loss prevention managers had considerably less exposure to these broader developments and the strategic thinking behind them. Loss prevention management did, however, have a focus on the fitting room space, as reflected in this project. As such the design team’s extensive exploration of this wider field in relation to fitting rooms – although initially feeling somewhat indulgent – had resonance more broadly within the organization and was received with genuine interest by the loss prevention client.

Themes investigating the themes in the broader field

Activities: To identify the key themes the design team reflected on the problem field, looking for concepts that resonated or encapsulated its key qualities. Potential themes were discussed within the group and the most salient explored through questioning about what meanings, experiences or realities the theme might suggest or confer about the problem context. The team specifically sought themes that resonated with the key values and concerns of multiple stakeholders.

Description: Salient themes that crystallized from the above discussion around the problem arena were the themes of, heightened experience, transformation, openness and connection/connectivity. .

Heightened experience: Where ‘customer experience’ was once a phrase associated exclusively with the in-person shopping experience (because there was no real alternative), shoppers are now able to have a perfectly satisfactory experience online, as modern technological interfaces for online shopping are visually/aurally impressive and increasingly interactive. It was necessary, therefore, to investigate what makes an evocative, enticing and memorable experience in a modern, bricks-and-mortar shopping environment. A key attraction of in-person shopping remains in the department store’s ability to engage many of a customer’s senses: the smell of perfume; the sights and sounds of a floor merchandise display; the sense/s of physical movement and touch; the feel of new clothes put on and the emotional sensation of walking around in them; and the thrill of an immediate personal reinvention.

The notion of the experience of personal reinvention leads to the theme of transformation. This theme encompasses both the idea of offering shoppers an opportunity for personal aesthetic transformation via new ‘costumes’, as well as the more abstract notion of the department store organization’s feeling constant pressure to transform itself and its customer offerings.

Openness – this theme encompasses visual openness, and references the need for staff to be able to see in and around the shop and dressing room, as well as the pleasure of being able to *look*, and *be looked at* by others, as a result of a visually open and expansive environment. The notion of openness also spoke strongly to the concept of visibility in literature on crime prevention in retail stores[11].

A final theme was connectivity/connection – the need for points of connection and communication between the store and the customer, as well as between the customer’s ‘in-person’ self, and their online, networked self. This theme also encompasses the sense of a need for smooth conceptual connection between a store’s bricks-and-mortar identity and its own online mode/presence.

Reflection: After broadening the problem arena in the previous stages, identifying key themes was a process of focusing or distilling to identify those concepts that provided the richest possibilities for thinking about the experience of the fitting rooms while also responding to the values and priorities of the client organization. For the design team, these concepts felt generative and fruitful, in the sense that they provoked new ways of conceptualizing the design, use and experience the fitting rooms.

Frames identifying patterns in the themes to create frames

Activities: To create the frame for this project the design team drew down on the themes identified above. Each of the key themes are presented here using Dorst’s semantic structure for thinking about and articulating frames: ‘If the problem situation is approached as if it is a problem of [concept] then [statement of how problem is solved]’. The theme-specific frames are then integrated into an overarching frame for considering fitting rooms. It is also worth stating that at this point in the project, after the articulation of frames, individual graduate

students compiled a research report and interim presentations based on the first six stages of the frame creation model. The students presented this work to the client to obtain feedback and gauge whether the client felt the new frames for the fittings rooms resonated with the values of the organization.

Description: Drawing on the themes developed by the design team, the following four framing statements were developed:

> If the problem situation of the fitting rooms is approached as if it is a problem of *visibility*, then the fitting room should be a place that is both easily seen (in the layout of the store) and within which individual shoppers can easily be seen; and where shoppers can (to a greater or lesser extent, according to their wishes) display themselves and watch others.

> If the problem situation of the fitting rooms is approached as if it is a problem of *connection/connectivity*, then the fitting room experience should also offer the opportunity to connect: with human beings (staff and other shoppers), with a product and brand, and with each shopper's online 'self'. In order to offer this experience of connectivity, the fitting room experience needs also to integrate seamlessly into a multi-modal 'clicks and mortar' shopping experience.

> If the problem situation of the fitting rooms is approached as if it is a problem of *transformation*, then the fitting room and its purpose, function, look and feel should permit an increased sense of personal reinvention and transformation among shoppers using the space. The fitting room area should also be viewed as physical location by and through which the department store organization can transform their offering to customers.

> If the problem situation of the fitting rooms is approached as if it is a problem of *heightened customer experiences*, then the fitting room environment needs to evoke and create memories, not merely to facilitate a transaction. This process of evocation and memory creation needs to occur through sensory stimulation.

These framing statements were then encapsulated in a single frame for considering and opening up new opportunities for creating value:

'Fitting rooms as a prominent place of heightened store experience, where customers connect, create memories and transform'

Reflection: When a frame creation approach is taken, fundamental to the project is the identification of a frame that resonates with the values of the stakeholders and opens up new opportunities for resolving the problem. In this project the design team identified a frame that drew on prominent themes in the broader retail context and applied these to thinking about the fitting room experience. The client responded with positive curiosity to the students' framing of the problem. They outwardly expressed it was not the discussion of fitting room hardware and layout that they were expecting, and put forth concepts that, as loss prevention managers, they had not previously had the opportunity to consider. In spite of this, they could clearly see the value of framing fitting rooms in this new way for the business more broadly. In terms of loss prevention, they recognized the potential in of the frame for creating new possibilities for loss prevention, but optimistically reserved judgment as to their ultimate utility.

Futures: *exploring the possible outcomes and value propositions*

Activities: The framing of fitting rooms as a prominent place where customers connect with products to create memorable experiences opened up opportunities for thinking differently about their design. In the Futures stage the team started to articulate the potential design and operational implications of the 'what if' statement

encapsulated in the new frame. This stage involved design experiments and thinking forward, to test the validity and value of the articulation of the frame in responding to the organizational and problem context.

Description: Viewed through the new frame, the fitting rooms emerged as a place of significantly greater importance than previously: a place where people connect with products and the store brand, where customers make crucial purchasing decisions, and where shoppers should and would want to spend time. Accordingly, the fitting rooms needed to have an elevated physical importance within the store, to be located more centrally and prominently, with views into the fitting room area that suggested activity and excitement. This re-positioning of fitting rooms to be more central in the store layout (and indeed more central in the store experience) also potentially creates a fitting room environment less amenable to theft: if fitting rooms are in the centre of the store they will have better natural surveillance, meaning that the potential thief must consider that staff and other customers are more likely to notice if they steal.

Creating a greater sense of connection and eliciting memorable experiences was a key aspect of the new frame. It required that the fitting rooms assist customer experiences making good purchasing decisions and developing loyalty between the customer and the store. Additionally, in the new retail business environment where online connection with customers is fundamental, the fitting rooms ideally needed to provide opportunities for customers' in-store experiences to be linked to their online world. An interactive stylist console in the fitting room space is one way to achieve this. This console could also allocate fitting rooms, by customers simply scanning the items they want to try on. In addition, an interactive digital stylist could suggest other store products (e.g. pants, hats) identified as being stylistically complementary with the selected items (e.g. blouse). Customers could also register their loyalty card that 'remembers' their desired items and helps them purchase the product online, or notifies them if the item goes on sale.

The interactive stylist idea has clear value in terms of customer experience and purchasing, while also providing the potential to impact upon theft. The interactive stylist enables department store staff to monitor how many people are in the fitting room area and how long people are spending there. It strengthens legitimate uses and highlights potentially illegitimate use of the space. The interactive stylist also has the capacity to draw other people to the fitting room space, such as customers who want to explore or purchase products online. In so doing, the space becomes more vibrant and simultaneously disrupts the many theft techniques that require privacy.

The frame also requires that the fitting room space itself communicates the values of the business as well as the type of experiences it wants for its customers. By taking a purposeful, customer-focused approach to designing the fitting room booths it becomes possible to create a design aesthetic that supports and enhances legitimate uses (e.g. safe storage of personal belongings), while interfering with illegitimate uses (e.g. using personal belongings to conceal products). Design details that previously helped thieves hide security tags within the booths (e.g. ledges and gaps around mirrors) are addressed by explicitly including these considerations as design criteria alongside other aesthetic and functional requirements.

To facilitate the communication and testing of these concepts with the client, the design team generated an initial visualization of the frame. Figure 2 is a screen shot of one of these visualizations.



Interactive stylist

An aspiring, open and familiar
fitting room space

Prominant and visible
in the store environment

Reflection: The new frame provided a different way of thinking about fitting rooms that opened up design prospects for creating value for the organization both in terms their core sales business and loss prevention. This proposition was put to the client in a final design team presentation. It required the design team to articulate to the client actually how the concepts would reduce theft. As outlined above, it was proposed this would occur through introducing additional natural surveillance elements; strengthening connection and monitoring of customers through the use of the interactive stylist; and creating a fitting room space where people could and would want to dwell, creating a greater sense of ownership over the space and stronger legitimate use patterns. The client responded positively, acknowledging the potential of the concepts to impact on fitting room theft and generate value for them in the business. The client indicated a keen interest to canvas the value of the concepts more broadly in the organization.

Transformation: *investigate the change in practices required for implementation*

How the information and initial concepts presented in this project are progressed within the business is an ongoing process. The design team developed a high quality concept report to assist the client in conveying the work throughout the organization. Anecdotally the client indicates the project and concept report has opened up new conversations about Fitting Rooms as an integral component of the service model within the organisation for sales, service and theft reduction. The concepts, particularly the interactive stylist, resonate with other projects within the organization around multi-model shopping experiences. The client has a basis to engage and explore possibilities with sales, marketing and strategy divisions about the opportunities for both reducing shrinkage through the innovative positioning and use of technology within the store fitting rooms. These conversations, irrespective of the specific product elements discussed, are central to creating the change in orientation across the organization necessary for thinking differently and stimulating new opportunities for loss prevention. While a decision has not yet but made, discussions are continuing about moving into the next stage of prototyping some of the concepts.

Integration: *draw lessons from the new approach & identify opportunities*

This project highlighted the potential value of looking beyond the normal frames of security practice to explore the prospects for loss prevention in the broader themes and drivers in the organizational and business context. It was within the changing dynamics between the organization, the broader retail sector and the customer that new possibilities were found for reducing theft in the fitting rooms. Through elevating the experience of legitimate customers, connecting them with products and new ways of purchasing, opportunities are minimized for those considering the theft of products. It is likely that similar opportunities exist for reframing customers' experiences and reducing product loss in other retail environments. In this regard the Designing Out Crime research centre is currently engaged in a project on loss prevention in petrol stations, as well as being in discussions about a projects on smartphones in retail contexts and employee related theft.

5. Conclusion

In this paper we provided a detailed description of the application of Dorst's Frame Creation model to the problem of theft from fitting rooms in large retail stores. At different stages we reflected on the experiences and challenges of applying the model in this project. While it was evident the project provided considerable value for the client, it is not possible to simply ascribe this value to the application of the Frame Creation model. The value created in this project could have been due to the particular aptitude of the graduate students, the engagement of the client or simply getting lucky with the concepts. Withstanding this, there was a strong sense that the widening of the problem context into themes in the retail sector was crucial to the generation of the concepts in this project. To this end the Frame Creation model structure assisted in pushing back against the tendency within the design team to focus on solutions, enabling the exploration of the wider problem context.

Acknowledgement

The authors would like to express their thanks and gratitude to the exceptional design team; industrial designers Christana Addison, Jihee Min, Sandra Camacho and Associate Professor Douglas Tomkin

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