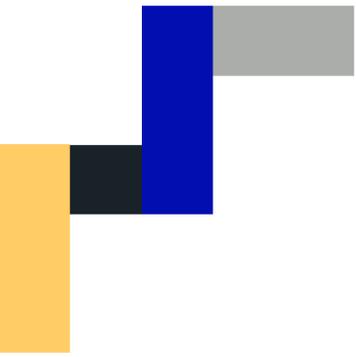


# Pioneering London's Retail Ecosystem

The Dandy Lab powered by University College London | July 2015 - February 2016

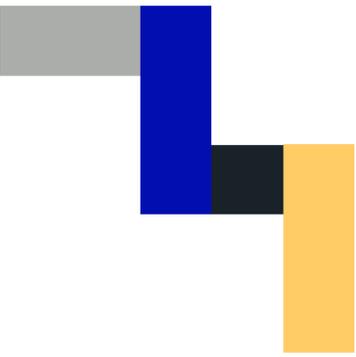


The Dandy | Lab



*The Dandy Lab was an interactive men's lifestyle shop. It curated and sold British brands and told their stories like a real-life magazine.*

*Powered by University College London, the shop was based at 73 Brushfield Street in London's iconic Old Spitalfields Market and was part British fashion shop and part retail lab testing cutting edge technologies. The pop up concept shop traded over a 6 month period, during which time The Dandy Lab team worked closely with retail tech companies and independent lifestyle brands to explore and define the blueprint of shops of the future.*



*The Dandy Lab shop was able to innovate without the common constraints of existing in-store policies enabling it to be lean and agile and to observe how the general public responded to products and in-store technologies. Our capacity to learn and iterate fast to deliver better solutions for an enhanced consumer experience made this testbed unique.*

*This paper presents what The Dandy Lab and our partners explored in-store and the key insights achieved. If you would like to find out more about the retail lab then please do get in touch:*

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<b>The Dandy Lab</b>	<b>8</b>
<b>University College London</b>	<b>10</b>
<b>The Partners</b>	<b>12</b>
<b>The Retail Lab</b>	<b>16</b>
<b>1. Fashion Retailing</b>	<b>20</b>
1a. ShopShare	21
1b. Physical Retail as Media	23

<b>2. Retail Technology Innovations</b>	<b>24</b>
2a. Shop in a Box	25
2b. In-store Analytics	27
2c. Augment the Journey	29
2d. MultiChannel	30
<b>What we Learnt</b>	<b>32</b>
<b>The Dandy Lab in the Media</b>	<b>36</b>



# The Dandy Lab

*“To address this fear of innovation we created a trading retail lab to test and iterate products/solutions while continually evolving the store’s customer experience based on data aggregated in real-time.”*

Co-Founders Julija Bainiaksina and Peter Jeun Ho Tsang

Stores across the UK’s high streets are becoming ever more homogeneous in their offerings which leads to an increasing need for retailers to stand out. They can differentiate their business by redefining the shoppers’ experience through more up-to-date in-store environments. From the scores of retailers we engaged with 83% identified a greater need to innovate, iterate and integrate digital into their physical retail strategies, especially with the rise of the tech-savvy Generation D.

To ensure they can do this, companies are now hiring Chief Digital Officers and many, including Sainsbury’s and Marks & Spencer, are opening up their own retail labs. However, many established retailers face problems due to their existing legacy systems rendering it impossible to facilitate any kind of testing or integration of innovative technologies.

There is also often a cultural barrier that leads to an ‘[innovation fear factor](#)’, especially as executives want to measure the return on investment which is often incredibly difficult in the early stages of technology adoption.

To address this fear of innovation we created [a trading retail lab](#) to test and iterate products/solutions while continually evolving the store’s customer experience based on data aggregated in real-time. The key objectives of this initiative were to:

## **Objective 1:**

Research what smart retail environments of the future might look like by defining the barriers and opportunities of new retail technology.

## **Objective 2:**

Test how physical and digital retail models can best be integrated.

## **Objective 3:**

Explore how independent brands can benefit from exposure in digitally enhanced physical spaces.

To accomplish these objectives the trading retail lab used the latest technologies such as individual product engagement analytics and more cutting edge technologies such as product engagement analytics, alongside more traditional methods such as footfall counters.

With [real-time data](#) we were able to really understand what was happening in-store and continually iterate so we were able to better support, showcase and sell emerging British brands’ products. It also allowed us to provide a better overall customer experience and to make more informed business decisions for the trading shop’s success. We elaborate on this in the [Retail Technology Innovations](#) section.



# University College London

*“Our collaboration with The Dandy Lab created an experimental “testbed” platform that could not only support internal research projects but also technologies from a variety of external partners.”*

Alastair Moore, UCL Centre for Entrepreneurship

Retail is an important sector for the UK economy that is in a state of transition. Drivers for change include evolutions in consumer behaviour, new payment solutions, smart label technology and multichannel shopping. This provides opportunities for novel concepts, ideas and business models to play a role in a successful future retail environment.

UCL (University College London) is a leading research university with a range of expertise in retail applications; from big data analytics to IoT, and from documenting the provenance of traditionally manufactured objects through to new manufacturing methods such as 3D printing.

UCL has pioneered “living labs” to experiment with new technologies and test new retail propositions. The partnership between The Dandy Lab and UCL builds upon earlier retail research including: the Oxfam on the Tales of Things project and the Launchbox pop-up retail space in Boxpark, Shoreditch.

Our collaboration with The Dandy Lab created an experimental “testbed” platform that could not only support internal research projects but also technologies from a variety of external partners. Access to leading retail technologies included supporting trials from companies incubated at IDEALondon (a partnership with Cisco), or companies supported on the ERDF funded “Capital

Accelerator Programme” (working with Capital Enterprise Ltd.).

This document provides early examples and success stories. Many of these interventions did not require significant amounts of investment in infrastructure, merely a vision. The [philosophy of rapid iteration](#) and failing fast to test the best ideas has been central to the success of The Dandy Lab : unconventional retail.

# The Partners

## DELIVERY PARTNERS



The latest solution in wireless charging for the office, home & public spaces.



The worldwide leader in IT that helps companies seize the opportunities of tomorrow.

DAVID BENNETT

A retail space designer, maker and engineer who explores ways to create unique objects and experiences.



A provider in data centre power efficiency, intelligent building infrastructure and industrial networking architecture.



Europe's largest and fastest growing network of pop ups, connecting short-term retail spaces with pop up shop ideas.



A mobile payment system allowing customers to purchase products without queuing at tills.



A provider of EPOS, mobile ordering loyalty solutions for coffee shops.



A provider of innovative and efficient technology solutions using digital media and mobile communications.

## STARTUPS SUPPORTED



An intelligent footfall counter based on footwear categorisation.



VMBeacon that enables reception of details for clothes displayed on shop mannequins via smartphone.



A London based studio working at the intersection of art and technology.



A visual search engine for fashion, enabling purchases based on photos of products.

FASHION & LIFESTYLE BRANDS

Alfie Douglas

Emily Hayes

McNair Shirts

Thomas Clipper

Deji George

London Sock Company

Smyth & Gibson

CSB London

Katie Mullaly

Shackleton

Clement & Claude

Heresy

Peter & Porter

Carter & Bond

Glints London

Mr D London

Alfred & Wilde

Fabric Gateaux

Phantom Watches

Tom Smarte

DMC

London Terrariums

Spoke London

Dapper England

Khunu

Sloane Stationery

Coeur

Holdall & Co.

Prickle Press

Charlie Noble

Gobi Organics

Mr Stanford

Ashley Marc Hovelle

Forbes & Lewis

Rubber Killer

Travel Org

Emily Carter

Mark Vessey

The Gentle-man Range

Czech & Speake

Leo Joseph

Smith/ Grey

Creel Leather

Huez\*

Stallard

Cedar

Gruhme

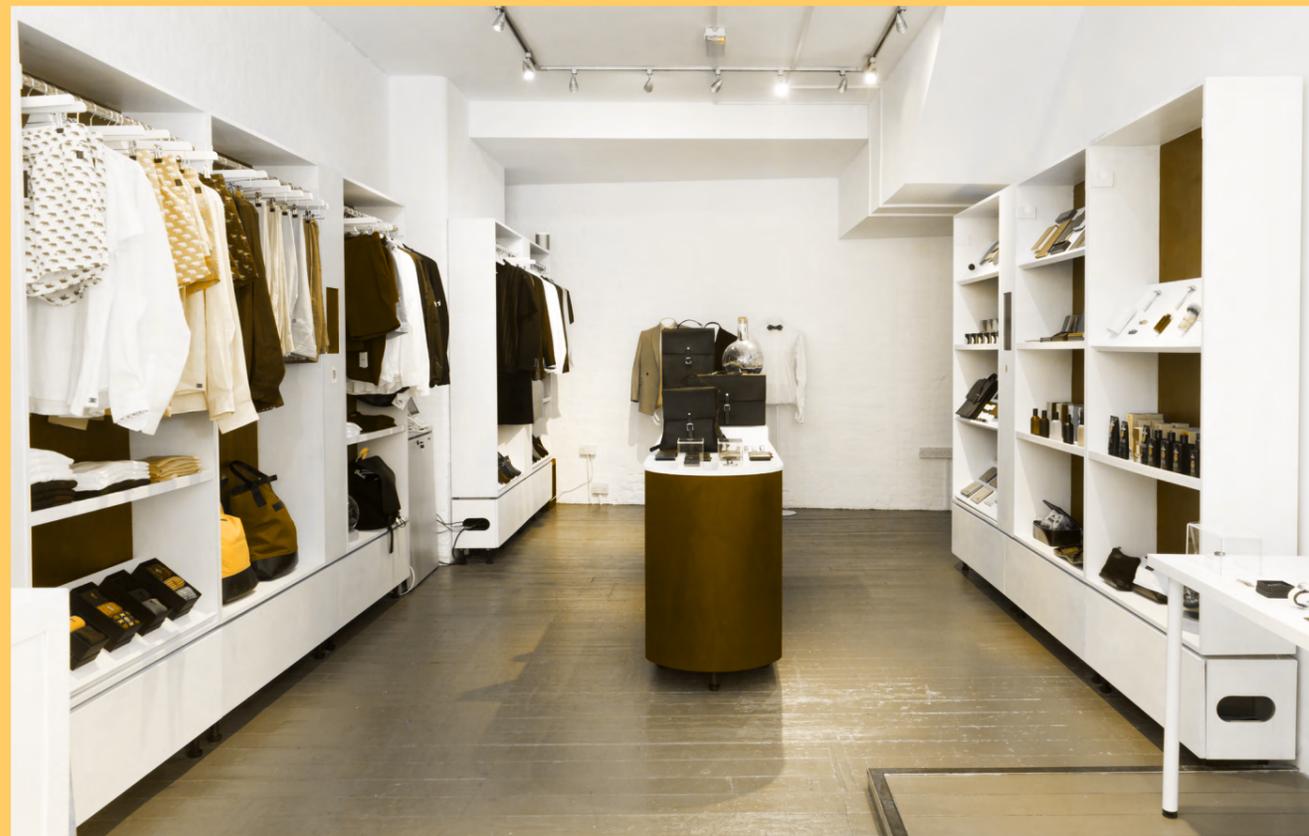
Ockham razor company

Ballanby

Foxhunt Menswear

Rufus Country

Wit Shop



# The Retail Lab

Spanning over two floors and across 1100 square feet, the shop opened for trading in August 2015. In the retail lab we explored two areas that are predicted to impact the future of retail:

## 1. Fashion Retailing:

Trialing new strategies such as ShopShare and using Physical Retail as Media platform.

## 2. Retail Technology Innovations:

Trialling new technologies in a real customer facing environment and researching strategies for effective integration of technology into customer journeys.

London was the perfect location to achieve the above because it has an established startup ecosystem. It is rated the number one city for supporting startups in Europe (Startup Ecosystem Report, 2015) and the number two for innovation & entrepreneurship worldwide (City Initiatives for Technology, Innovation and Entrepreneurship (CITIE), 2015).

The Dandy Lab acted as an enabler for young startups in fashion and technology to prove their solutions' value by operating in a trading physical space. It was designed to offer a low risk, low cost and high value testing facility for startups.

Following the learnings and iterations from 6 months of live testing 30% of technology solutions trialled in-store are now ready to be rolled

out into larger retail environments. They have the evidence to prove they are worth the investment and commitment needed to break into established retailers.

The startups that proved their value through participation in The Dandy Lab were selected on their potential to create a smarter retail environment for the future. This includes a more personalised service, more engaging experience and more intuitive journey for shoppers alongside better operational efficiency and boosted sales for retailers.

The selected technologies were then assigned to four in-store shopping journey design principles:

### Discover, Learn, Shop and Share.

This was done based on what the companies thought their primary use case was for their solution and through a series of in-store observations and data collection, we were able to identify which areas proved to be problematic.

By continually understanding which tools, features, and functions caused the most friction or had completely failed, we were able to adjust the journey to further improve the in-store experience. Below you can see how each technology was initially assigned to these four design principles.

# 1. DISCOVER



The app worked in conjunction with in-store beacons allowing customers to browse our product catalogue on their mobile phones. Even when the store was closed they could see the cost of items in the shop window and be directed to purchase online.

### Data Gathered:

- Sales conversion rate.
- Customer adoption rate - % of use.

### Rationale:

- Effect of push notifications in converting street traffic to in-store visitors.
- Customer adoption of apps to enhance the shopping experience.



We gave 200 RFID enabled cards to top customer, installed a tracker at the shop front and analysed data through a back end system. The above facilitated us to trial a loyalty system of 10% off all stock and helped our sales staff to provide a more personalised service based on the customer's details, tastes and purchase history.

### Data Gathered:

- Adoption rate of the loyalty cards.
- Customer return rates.
- Sales conversion rates.

### Rationale:

- Impact of personalised service on customer engagement and product sales increase and on brand and customer relationship improvement.

# 2. LEARN



In-store product recommendation tool developed in collaboration with The Dandy Lab - customers were able to search for matching, clashing or complimentary products in the digital catalogue by scanning a colour they liked.

### Data Gathered:

- Customer adoption rate - unique use of colour search tool.

### Rationale:

- Use of a non-invasive digital tool for product recommendations VS. face-to-face contact with a sales assistant.



Interactive displays built into the store's shelving units to show brand and product information. To activate the display customers scanned the NFC tag attached to any product on the reader below the screen. Alternatively, customers could search for particular brands and items on the screen.

### Data Gathered:

- Sales conversion rates.
- Dwell times.
- Customer adoption rate - % of use of the display units.

### Rationale:

- Customer interaction with displays and impact on product engagement.

# 3. SHOP



Mobile payment app allowing customers to scan a product and pay directly via personal mobile phone rather than via the till.

### Data Gathered:

- Customer adoption rate - % of app use and % of payment completion.

### Rationale:

- Customers motivations in by passing a till queue.
- Mode of integrating mobile payments into the customer journey.

# 4. SHARE



In our event space we provided free WIFI through Meraki access points to encourage our customers to share their experience and download the in-store apps.

### Data Gathered:

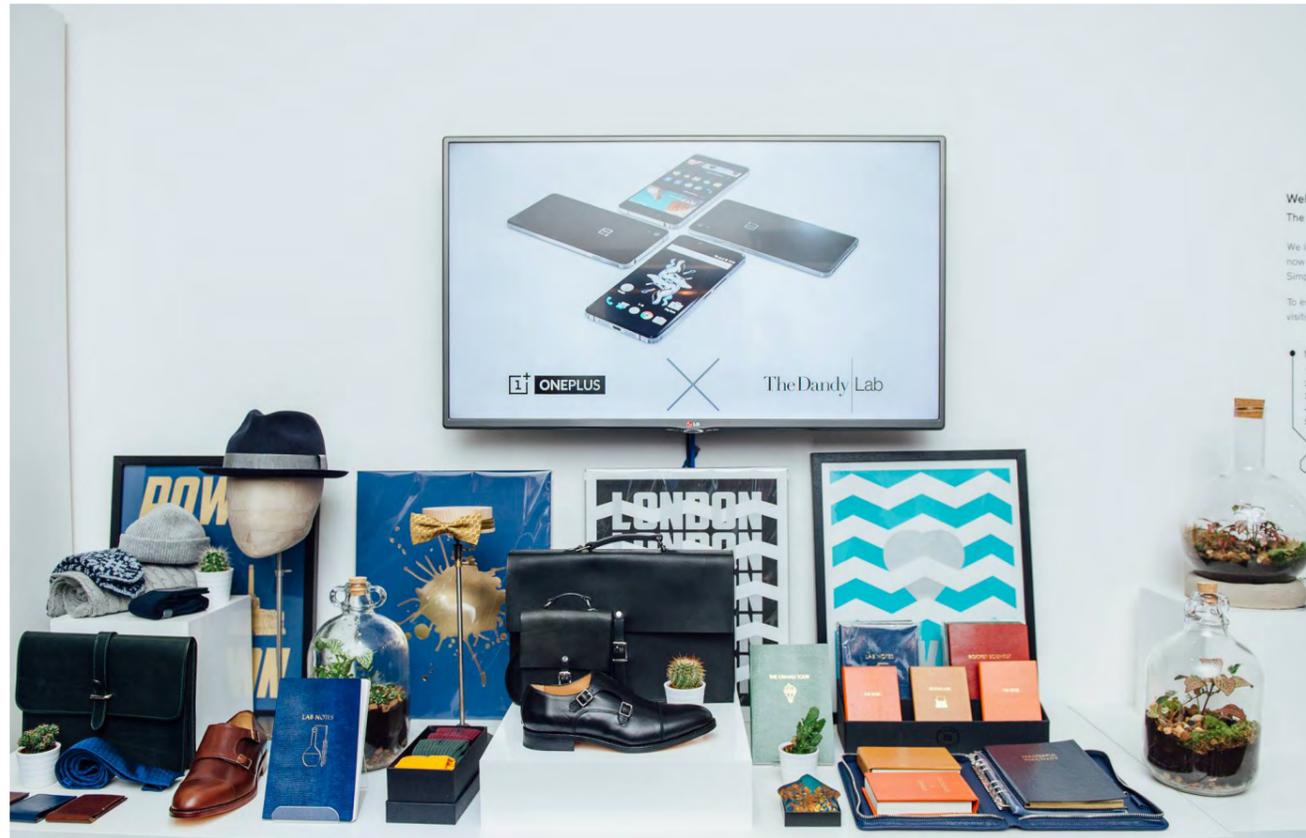
- Dwell times.
- Number of devices connected.

### Rationale:

- Adjust of visual merchandising to reflect dwell times.



Wireless phone charging points that were integrated into the bar to encourage longer dwell times and ensure that customers had power to facilitate digital interactions.



# 1. Fashion Retailing

We used two key concepts to explore the hypothesis that most retailers will evolve to embrace a showroom format as a viable way to stay ahead of the competition, keep fresh and in so doing attract returning and new customers. Implying that the future of retail will not be limited to a traditional wholesale model, but instead have more flexible business models to create additional revenue streams. The two concepts were:

## 1a. ShopShare:

We selected ShopShare to prove the method works to satisfy a demand from small independent brands wanting to showcase products in a physical retail space but without the finance and reputation to do so.

## 1b. Physical Retail as Media:

We selected Physical Retail as Media to test the theory that retail is no longer simply about sales per square foot, but instead about the experience which should be tied into the media consumed everyday by customers online. This approach turns physical retail spaces into offline marketing platforms to extend their online presence.

# 1a. Shop- Share

The Dandy Lab stocked a total of 52 British product brands on a concession basis ranging from completely new startups such as Syndicut (swimwear), McNair (clothing) and Clement & Claude (Candles), to more established brands such as Smyth & Gibson (shirting) and Czech & Speake (fragrance).

The brands were '**curated**' on the strength of product offering, ability to fulfill and the brand stories that could be narrated through the digital touchpoints. Each concession in the store was required to commit to a minimum of three months and be menswear shop appropriate.

We only stocked **British brands** and of those over 65% originated in London, over 57% were available exclusively at The Dandy Lab and 54% operated on a ShopShare rather than a conventional concession basis. Brands in-store **blurred the online and offline**, categories included Digital Blend, (predominantly online services additionally going offline) and Digital Luxury (an e-tailer expanding operations into physical stores).

One such Digital Blend brand was Spoke, an e-tailer that came offline to offer their made-to-measure trouser service in The Dandy Lab. They hoped to gain an insight into how their operations would work within a physical format and increase brand awareness. They successfully extended their customer base and

illustrated the potential operational challenges with taking their offering offline. For example finding the accuracy of tailoring varied more offline than online, something they've since addressed.

To prove the ShopShare model we worked with We Are Pop Up, an online platform providing temporary retail spaces to their userbase of over 25,000 brands who find the flexibility they offer invaluable. The Dandy Lab worked with them to generate a pipeline of menswear brands, connect to the independent brand community and process transactions through their automated system.

### Collaborator: We Are Pop Up

“For us, The Dandy Lab was a pioneering retail idea. The We Are Pop Up community is made up of creative retailers pushing the boundaries of what's possible on the high street and it was beneficial to have The Dandy Lab in the retail ecosystem.

Through **regular feedback and user suggestions**, both teams worked collaboratively to co-create and evolve the tools and dashboard that we provide space owners to help them better manage enquiries and bookings in their retail space.

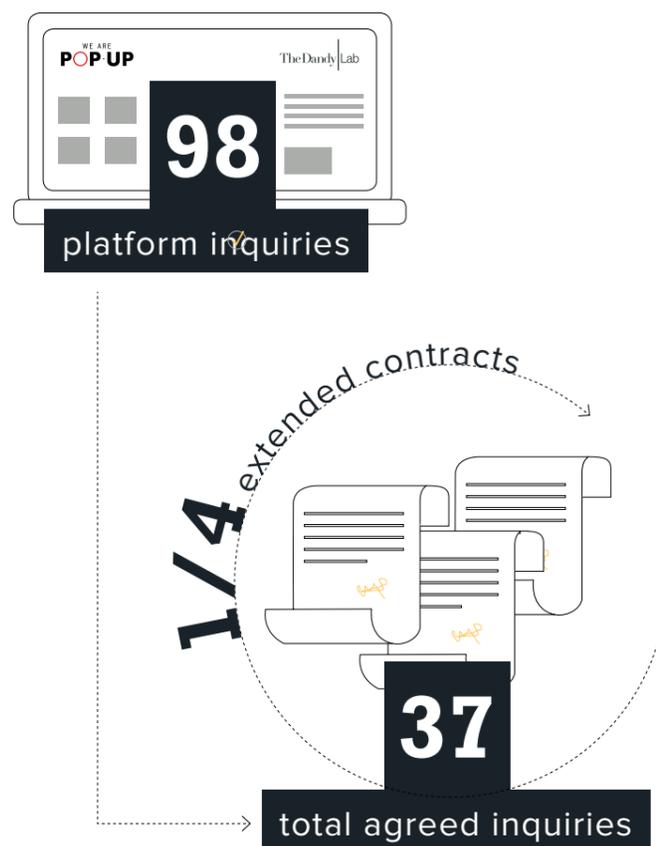
We Are Pop Up is passionate about user-centred design and we found it beneficial to work closely with The

Dandy Lab, one of our super-users, to refine and improve this tool set.

A further benefit of working with The Dandy Lab was that it helped us to generate a **higher quality pipeline** of men's fashion, accessories and grooming brands that were not previously active on the site. As a double-sided marketplace, our growth and success relies on the growth of both brands and spaces, and better matches between them.

The store has provided a new opportunity for menswear brands to have **rapid access to prime retail space** at a cost and lead-in time not possible until very recently on the high street. ”

- Abigail Freeman  
Marketing Director



# 1b. Physical Retail as Media

Many brands are now seeing the potential of using the physical space for more than simply driving sales. This was the case when **OnePlus**, a smartphone company who approached The Dandy Lab to collaborate on the November 2015 launch of their new device - the OnePlus X. OnePlus' marketing campaigns have been surrounded by a great deal of hype, their invite only system amassed a huge base of super fans and a Facebook following of over 2.3 million, quite a feat considering they only launched in 2013.

The Dandy Lab created a fresh in-store experience for the OnePlus launch event by transforming all of the in-store digital assets, including the interactive screens and product displays, to better reflect both brands.

They worked with us to extend their marketing by taking their online offering offline. The store **acted as** a showroom, a marketing tool, and a sales channel while putting them in a space demonstrating the latest tech innovations that appeal to a high fashion audience. Thus attracting a particular customer base.

OnePlus held four European launch events. The Dandy Lab was the only UK retailer to launch the device, following Colette, Paris, and later came Rome and Berlin.

We had **queues for over 6 hours** outside the store, and visitors travelled from beyond the UK to purchase the new OnePlus phone and it **sold out within 2 hours**.

The event elevated the appeal of the retail space due to the exclusivity and scarcity of the product stocked and the accompanying online marketing.

As a direct result of the campaign we saw our **social media increase by 30%** and **store visits increase by 300%**. The event demonstrated how retailers can push the boundaries of traditional shopping, the sale of products is no longer strictly tied to the store itself or the traditional metric of sales per square foot, but rather is more about experience per square foot.



## 2. Retail Technology Innovations

Fast moving mobile technologies have a significant impact on shopping habits so retailers must adapt quickly and implement technologies relevant to their target customer demographics.

We created the retail lab to continually iterate the design of the customer journey and help nurture better solutions to address the mindsets of the tech-savvy millennials. The lab provided a perfect environment for us to **test innovative retail technology** and **offer feedback** to the companies so they could iterate and improve their solutions.

We could then better integrate the technology into The Dandy Lab's customer journey for a seamless multichannel experience. Through manual and digital A/B testing we collated rich data sets that we used as a basis for our business decisions. We looked at the following areas of retail technology:

### 2a. Shop in a Box:

Plug and play solutions that enable retailers to execute and trade instantaneously without the requirements of lengthy installs.

*e.g. pre-fabricated modular units.*

### 2b. In-Store Analytics:

Technologies in order to better understand the consumer behaviour both in and outside the shop.

*e.g. footfall counters, wifi analytics, etc.*

### 2c. Augmenting the Customer Journey:

Methods of taking the shopping experience beyond the physical limits of the store and creating retail theatre.

*e.g. interactive display units, interactive mannequins, interactive products through RFID tags.*

### 2d. Multichannel:

About connecting every distribution channel and customer touchpoint, across the physical and digital, in a seamless way.

*e.g. Online browsing and research at home but purchasing in a physical store.*

## 2a. Shop in a Box

The Dandy Lab unit was a Grade II listed building which meant there were a number of constraints around the deployment and installation of furniture and technology. We addressed this by designing modular shelving units, flexible enough for most spaces and with cabling and networking already built in, to allow

for a quick and easy deployment in-store. The units were designed to allow for the easy addition of screens and other relevant hardware such as Cisco Meraki access points.

By integrating our pre-fabricated modular furniture with Cisco technologies, we were able to simplify the deployment of the IT infrastructure and demonstrate how an entire shop could be easily and quickly **connected to the cloud**. Cisco's Universal Power over Ethernet Switching (UPoE) - the store's network and power distribution gear, acted as the central nervous system for the store, enabling rapid deployment of a plethora IoT sensors and digital equipment.

### Collaborator: Cisco

“ Working with The Dandy Lab has enabled Cisco to gain insight into the barriers that retailers face wanting to adopt technologies in a busy high-street location on tight margins and little resource. Trying to achieve frictionless and robust technologies that were easy to insert into store operations was one of the key objectives for us.

This was taken further by the extraction of **customer analytics** in a crowded location, which required careful tuning in order to optimise data collection. Our partnership set out to achieve the following:

**Scale:** Conducting testing was very easy within this environment. The smaller nature of the store, enabled a highly agile environment, which enabled new capabilities to be tested at speed, and reducing the time taken to arrive at commercial decisions. This approach had advantages over the deployment challenges in larger retail environments where implementing one single trial has to be planned in detail, taking significant time to deploy.

**Modularity:** By deploying a hardened technology, using Power Over Ethernet (PoE), this enabled the ability for devices to be connected and powered very quickly with the deployment of one single Ethernet cable. This showcased the cost and practical effectiveness of locating equipment in temporary shop fittings that have a potential **return on investment of up to 49%** reception of Opex from power savings and a **reduction of 11%** in the Capex of electrical installation and hardware.

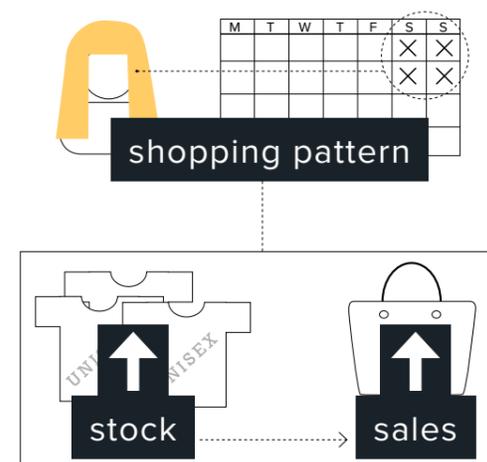
**Showcase:** A number of visits were made by a number of larger retail organisations to see how technology can be used to enhance the shopper experience and this would have contributed to creating a positive sentiment to deploy similar approaches. ”

- Bob Garland,  
Vertical Solutions Architect  
UK Retail

# 2b. In-Store Analytics

We deployed a number of analytics tools in the store and used the resulting data in making better business decisions. Some examples of how analytics helped us to shape our operations and increase sales are:

**Footfall & Demographic Data:** By analysing footfall and customer demographic data from a number of different sources (including footfall cameras, wifi analytics and manual counting), we iterated our product selection and displays in real-time to correlate with customer segments and time periods.



For example, it was shown that females were more likely to visit the shop during the first weekends of the month so more unisex products were stocked during these times resulting in an increase in sales. This in the future could be automated throughout the supply chain, which would **allow for retailers to react** at speed, based on accurate data.

**Dwell Time Data:** The Meraki systems integrated into the furniture collected data as heatmaps. Through these we identified the hot spots in the store and could deduce the most popular products based on dwell times. For example, real-time data demonstrated that the stationery was the most popular range in terms of customer engagement time.

It was originally positioned in the middle of the store but, based on this data, the decision was made to move it to the store entrance. This pulled in more custom and further increased engagement times which dramatically increased sales.

By continually adjusting the visual merchandising in this way, we were able to create a better customer journey led by data. Within time, this manual process could be automated by machine learning to reinforce the creative decisions that visual merchandisers make.

**Interaction Data:** Based solely on observational data, the engagement with interactive screens was by customers below the age of 25.

However we found that adoption rates for the screens remained low, implying that customers preferred looking at physical products and talking to sales advisors rather than browsing on screen for product information.

Despite the interaction being as simple as scanning the product's swing tag on the screen it still proved to be too much of a friction point for the customer. Based on this we integrated the product information into the purchase path through the mobile payment system which resulted in better engagement.

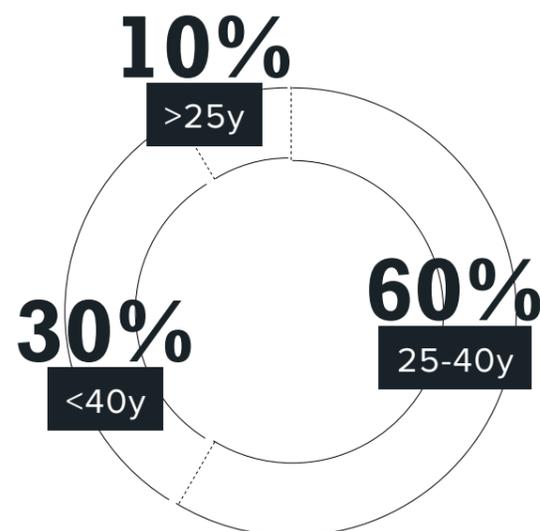
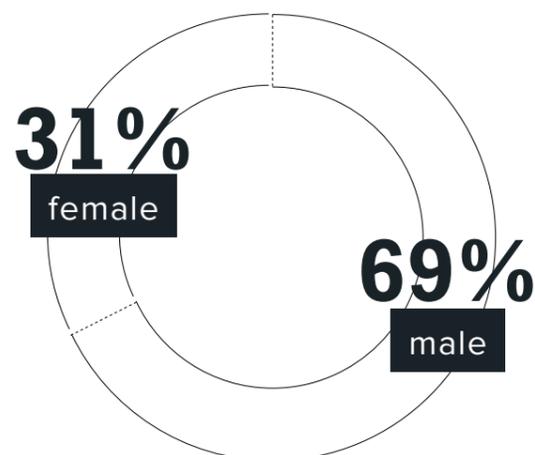
**Collaborator:  
Hoxton Analytics**

“ Showcasing our prototype footfall counter at The Dandy Lab allowed us the freedom to test new systems and networking protocols. For a growing technology company like ours, having the **support** of the lab was valuable in iterating and improving the real-world performance of the product. Commercially, we got some great exposure through The Dandy Lab network to large retail chains such as New Look, and some fantastic press with coverage on BBC Click.

Deploying our equipment in a small, controlled environment such as The Dandy Lab has been a stepping stone into larger deployments. We have since installed units in large global fashion retailers and across large shopping centres. Furthermore,

the opportunity to collaborate with the other technology companies, especially Cisco, has been invaluable. We now have a very close relationship with the company and are currently integrating our technologies with an aim to deploy it in Cisco's client sites. ”

- Owen McCormack & Will Thomas  
Co-Founders



# 2c. Aug- ment the Jour- ney

We harnessed **real-time data** to **personalise** the in-store journey for individual customers which enhanced the discovery phase of the customer journey and improved the service delivered by sales assistants.

Through Reward Technology we offered an RFID enabled loyalty card to our top customers (based on spend), to receive a better service 85% were happy to share their data. As a relatively young store we lacked the historical customer data sets that established retailers have access to so needed an alternative, the solutions in The Dandy Lab focussed on real-time data which we used to

better understand customers and thus improve our service to them.

The shop served mainly the surrounding city professionals and local inhabitants, but attracted a variety of customers, **17% of which returned** as a result of either the RFID enabled loyalty cards or in-store marketing initiatives.

Sales staff were alerted when a returning customer with a loyalty card entered the store, they would know who the customer was, their transaction history and their style preferences which had been previously profiled by staff. This helped store staff to offer product recommendations that really suited the customers, thus developing better relations with them to ultimately boost sales.

Tactics like this demonstrate how data can be exploited in new ways to create **non-invasive** sales opportunities rather than sticking to more traditional invasive push marketing.

This could signal the dawn of more **advanced retail CRM systems** that would ensure the same level of personalised service that spans across both online and offline channels without location restraints.

**Collaborator:  
Reward Technology**

“ The Dandy Lab project had 3 key objectives, illustrate the rapid

digital on-boarding of customers into a loyalty system, deliver detection solutions to deliver data on customer frequency and purchasing behaviour and finally to enable staff to deliver personalisation in the selling process with their loyal customers.

The time required to get customers digitally signed up to the loyalty system was less than a minute and was seamless, they had the options on the type of communication of offers when they entered the store - SMS, Email or App notifications.

The RFID detection of returning customer by detection The Dandy Lab card enabled data to be captured on, frequency of visit, time of day, day of week, time in store and purchasing or just browsing behaviour data capture.

However the core component to **increase the engagement** of staff and personalisation of service was through our ability to notify staff of the customer's profile data. The last time they entered the store, their previous purchases data was illustrated, that allowed them to be clear on the segmentation profiles of these customers and engage them with enough data to convert sales from an informed position around basket size and category preferences.

Our next steps are to deliver **richer recommendation models** based on what other customers also purchased.

The key objective was to continually iterate in an open innovation environment, which The Dandy Lab provided. The focus was on putting in place the right infrastructure and both teams working collaboratively to fast track this with additions to the platform. Our key learning was that if a retailer's team is focused on delivery with the solution, then time frames for full integration can be slashed. This has helped us to understand the **critical path** required for different types of retailers and the potential speed that we can roll out our solution across multiple stores. ”

- Paul Sheedy,  
CEO & Founder

## 2d. Multi Channel

As previously discussed in the In-Store Analytics: Interaction Data section the interactive screens had low adoption rates so we instead

integrated product information into the purchase path through the mobile payment system, provided by MishiPay.

The above was possible through the app's 'Read My Story' feature, which transfers the product and brand stories from the very public in-store setting to their personal device. It also allowed the customer to save items discovered in-store into a wish list which they could later refer back to. This allowed our product offering to be truly multichannel.

One of the common challenges with such multichannel delivery is a fear of privacy intrusion, but we found this wasn't an issue in reality. When we paired a promotion of the app in-store with pricing incentives we saw a high adoption rate of MishiPay's technology, with **42% of customers happy to pay** using their phones despite it being their first interaction with the app.

This reiterates that by **embedding technologies** as experience and not just as facilitators, the mobile phone can be a powerful tool at service level within the customer journey aiding continued interactions beyond the shop floor.

### Collaborator: MishiPay

“ This was our first live test in a trading store and it was amazing to see our technology in action. The Dandy Lab gave us the opportunity to

interact with customers purchasing products through our platform and it allowed us to test both the app, the integration with the cloud and the hardware with RFID tags.

In a short space of time we refined both the system architecture and technology, as well as the overall business strategy and plan.

What really surprised us was the interest from other companies as well, this helped us to **expand our offering** into areas such as integration with Blockchain technology and end-to-end supply chain visibility.

Since launching in The Dandy Lab and validating what we offer, we have been able to progress a great deal towards raising our seed round of £400K. Over 10 different investors and potential clients visited the store to experience MishiPay making the opportunity invaluable for us. ”

- Mustafa Khanwala & Tanvi Bhardwaj  
Co-Founders

# What We Learnt

## So what will future retail environments look like?

It was evident from our observations that in the future retailers will need to embed and use technologies in their retail strategies to better differentiate themselves.

They must overcome the 'fear of innovation' to really understand how holistic digital strategies can be effectively executed, not just used as standalone solutions loosely connected together and forced upon the customer.

Several new retail formats emerged from the Retail Lab including digitised physical spaces used as showrooms, in-store services that use real-time data and analytics to personalise shopping journeys, and systems that improve logistical operations.

### Objective1:

**Research what smart retail environments of the future might look like by defining the barriers and opportunities of new retail technology.**

The exploration of the boundaries between non-invasive technologies such as the RFID loyalty cards and push notifications

such as beacons or interactive screens allowed us to see how far we could use machines to sell products.

Smart retail environments of the future may not necessarily have technology visible to the customer, but solutions that sit in the background to allow the retail environment to intuitively adapt to the individual customer.

By continually analysing data sets we were able to dynamically update our retail environment and in so doing demonstrate the paradigms for future smart retail environments. Shops will be able to perform functions such as mapping out individual visitor profiles to specific locations, which will in turn transform the in-store experience in real-time.

Overtime, retailers will be able to utilise artificial intelligence to automate data-crunching so that the physical environment can be hyper-personalised to the individual whereby lighting units and displays dynamically change according to individuals' shopping habits and preferences.

At present this automation is very difficult to scale across international chains, however this personalisation will be key. Solutions like that provided by Hoxton Analytics, offering more qualitative data, will become more sophisticated. With machine

learning environments personalised, seamless, multi-channel journeys will be a reality.

### Objective 2:

#### **Test how physical and digital retail models can best be integrated.**

Through the trading retail lab we were able to test how physical and digital strategies can be better integrated into the shopping journey. It was a success that garnered interest from a diverse range of global brands including large fashion retailers, supermarkets and even hotel groups, all of whom were trying to understand how to better integrate digital strategies into their retail channels.

The technology companies we worked with all gathered invaluable insights to improve their solutions. We continually pushed the boundaries of the in-store environment to offer better customer service. Technologies that are fully integrated into the natural purchasing path are more likely to be adopted by the customer.

MishiPay's trial proved that customers were more than happy to provide confidential information if it allowed them to enjoy a better in-store experience. The retail lab clearly defined the context of the app for the startup and in the process identified that queue omission and

payment simplicity are key issues for the customer.

The next step for solutions like Mishipay is supply chain integration to overcome logistical barriers for larger organisations. This would allow technology that is currently deemed too disruptive for adoption to become more universally used.

Similarly, if technology from any touchpoint along the customer journey integrates with large scale logistics then its potential to disrupt expands exponentially.

### Objective 3:

#### **Explore how independent brands can benefit from exposure in digitally enhanced physical spaces.**

Showrooming is feared by many retailers. We clearly demonstrated that, instead of fearing it, brands can instead benefit from exposure in digitally enhanced physical spaces. The OnePlus X launch proved that Physical Retail as Media can be a successful strategy, and in this particular case the success of the event demonstrated that if executed effectively, both retailer and brand can reap rewards through sales or increased brand awareness.

This has resulted in categories including Digital Blend and Digital Luxury emerging from platforms such as We Are Pop Up's online

solution, which has enabled smaller independent brands to create engaging offline experiences. Such technology has nurtured the London retail ecosystem and proved that future retail models will be more successful if they are more malleable. Thus retailers will survive, even on homogeneous high streets, by providing customers with new shopping environments

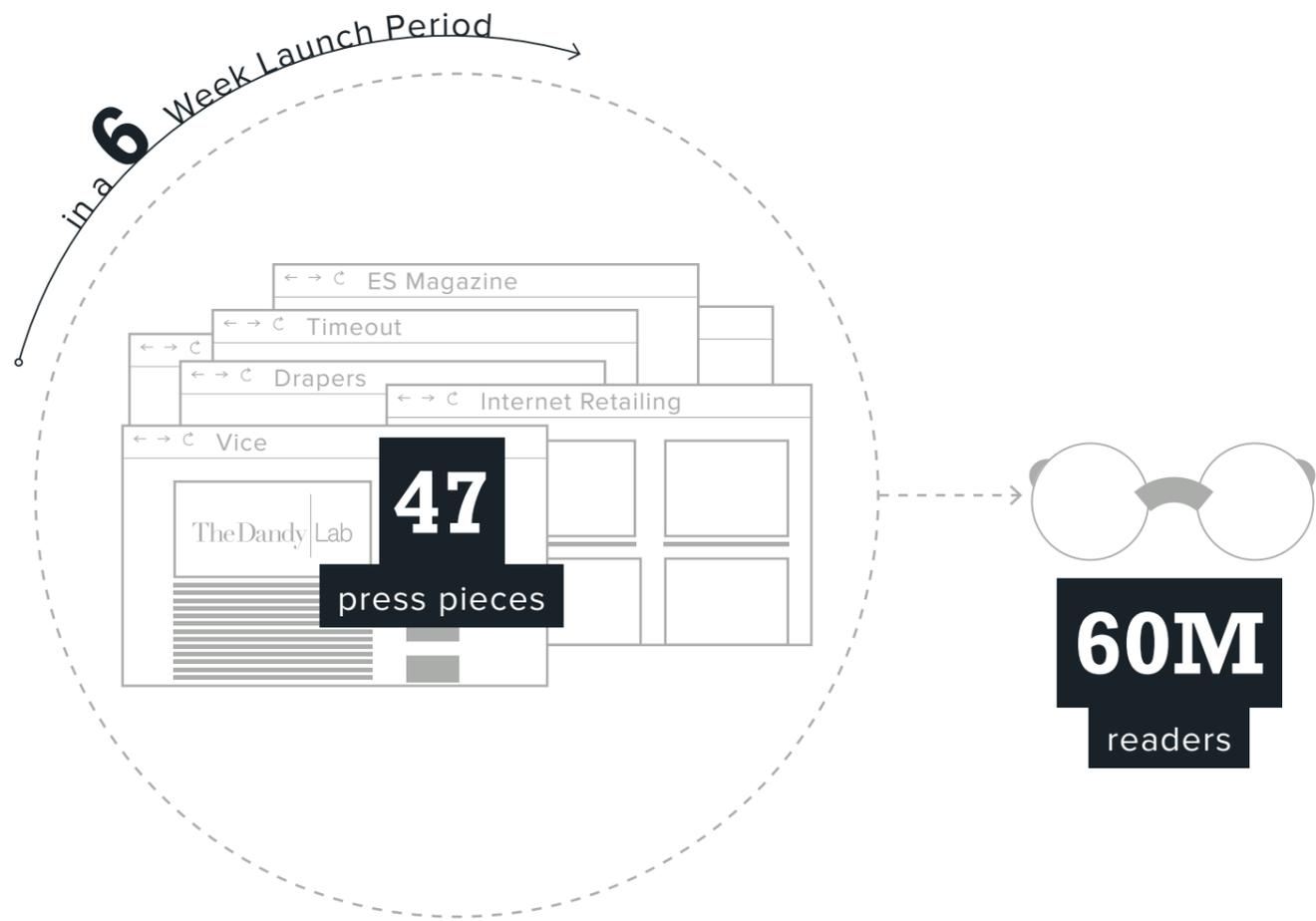
### Looking into the future:

The 'Innovation fear factor', that came up time and again in conversations with The Dandy Lab's visitors, is something that organisations must address now in order to thrive over the next 10 - 15 years. Retailers must build long-term digital strategies that better address the need and desires of more complex and digitally inclined customers.

Retailers can no longer rely on more traditional formats. Smarter retail environments will need to be created using technologies that are engaging and responsive to the individual customer. Artificially intelligent stores using data will eventually be the next step that retailers must deploy in order to evolve with the ever changing customer consumption habits.

The Dandy Lab has demonstrated that the future of retail will require the harnessing of data, more malleable retail formats and more personalised customer journeys.

Retailers must develop smarter retailing environments around these core requirements now to ensure their survival in a continually evolving and ever-more competitive retail landscape. To flourish, rather than simply survive, they must invest in new and innovative technologies imminently.



# The Dandy Lab in the Media





*As a full immersive digital transformation experience, Cisco was able to demonstrate the possibilities of disrupting the retail industry. The value of collaborating with many partners highlights how we can be truly innovative, this was shown with the amount of traction that fused Cisco and The Dandy Lab story such as at NRF 2016 in New York City, and the sheer volume of press coverage and social media interest we received.*

Jackie Nixon, UK & Ireland Marketing Director, Cisco

*The OnePlus X Pop-up, hosted and organized by The Dandy Lab, was a huge success in creating a fun, intimate experience for our biggest UK-based fans.*

David Sanmartin, Head of EU Marketing, OnePlus

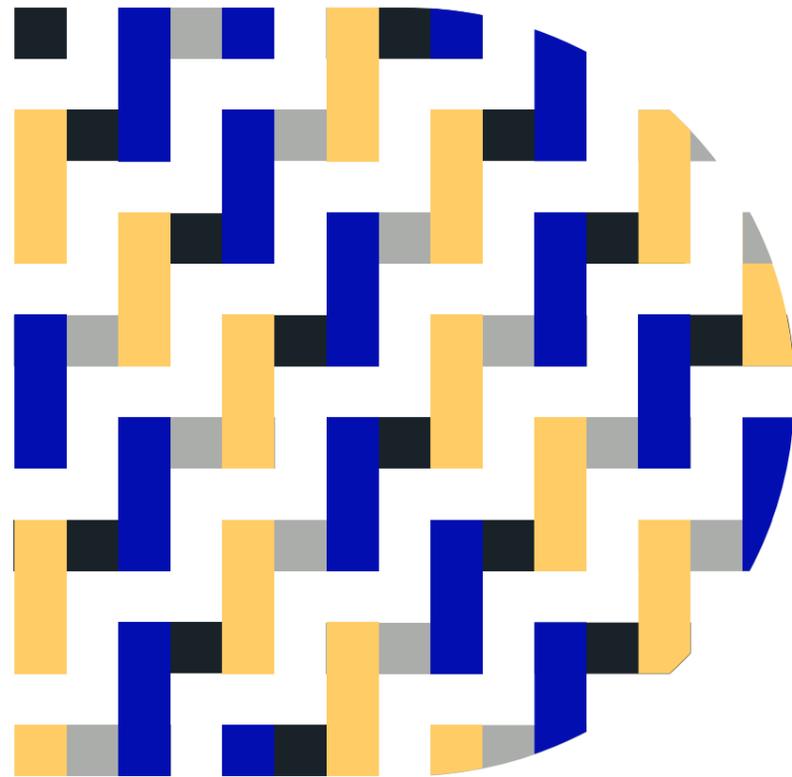


*Retailers and curators are literally building businesses on top of the We Are Pop Up platform using ShopShare as a quick route to market, or as a tool to curate a unique retail experience. As a result, brands are booking short-term retail space for anything from a day to 6 months plus and changing the retail landscape in London.*

Abigail Freeman, Marketing Director, We Are Pop Up

*Working with The Dandy Lab was a real eye-opener to the challenges of dealing with a live retail environment and it helped us to really understand the depth of the challenges with our solution.*

Mustafa Khanwala, CEO, MishiPay



*The programme has benefitted from many contributions in kind. UCL is the underwriter of capital costs and The Dandy Lab has maintained the overhead costs. Through Capital Enterprise and UCL the programme has received financial support from Greater London Authority ERDF financed Capital Accelerator Programme.*

*We are very grateful for the support of all those mentioned here as well as the generosity and kindness of others not specifically thanked.*



**If you would like to find out more:**

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