

Digital Retail Innovations 2021



Sponsored by



CONTENTS

Introduction	01
Advisory panel	03
Methodology	07

INNOVATION RANKING

Top 60 global innovations	08
Top 20 most innovative	23
Top 20 most potentially commercial	24
Top 20 most potentially beneficial to consumers	25
Top 20 most potentially influential across the sector	26



Last year was far from normal as Covid-19 dramatically impacted all our lives and this year has been a continuation of that scenario

as retailers have adapted to the dynamic and challenging conditions. What has remained constant through this period of flux is the high level of innovation in the retail sector.

Against this backdrop, we have the pleasure of bringing you the latest annual 'Retail Insider Digital Retail Innovations' report for 2021 that again reflects the impact of Covid-19 but also continues to adhere to the report's long-term underlying mission of highlighting the most interesting and potentially impactful digitally-driven innovations in the retail industry.

Although some of the Top 20 positions in this year's list relate to Covid-19, in particular those that deliver contactless experiences, the big theme at the top end of the report this year is undoubtedly sustainability. It was certainly there pre-Covid-19 but it seems to have been thrust to the fore this year with Too Good To Go, Loop, Green Dot, Olio and Stop & Shop's Flash Food app all appearing in the top 20.

What has also featured prominently this year are innovations involving automation, robotics and vending solutions, which might well be included as a result of the chronic shortage of employees across retail and food as well as the ongoing drives by retailers to increase efficiency. Karakuri, Fabric micro-fulfilment centres, Piestro Pizza, and Chowbotics vending machines are among such innovations included this year.

However, topping the list for 2021 is the IKEA Studio app that uses AR to enable shoppers to accurately view 3D furniture within their homes. Behind it is Amazon's cashierless grocery stores and in third place is Hudson Travel that licences this very Amazon technology in some of its travel hub outlets.

The innovations in the report have been ranked by an impressive Advisory Panel, with experience drawn from across all fields of retail. This gives the report a robust methodology that provides it with the credibility to ensure it is hopefully viewed as a valuable resource.

Each of the Panel independently scored the 60 innovations in the report across four different criteria – how innovative, how potentially commercial, potential influence across the sector, and potential benefit to consumers – with the results shown in separate ranked tables as well as the main table based on the grand totals.

Each member of the Advisory Panel played a vital part in the production of the report and I would like to thank them for the time they gave up during the scoring process. I'd also very much like to thank Webloyalty for its sponsorship of this report. I believe its ongoing partnership with Retail Insider has enabled the creation of a much-valued publication in the industry.

GLYNN DAVIS

Retail Insider | @GlynnDavis



BEN STIRLING
Managing Director,
Webloyalty Northern Europe

With COVID-19 causing major disruption to all of us, the retail industry wasn't spared with a decrease of foot traffic in physical stores causing retailers to boost their digital presence. This impact has led to incredible innovation as retailers, and customers, adapt to the changing environment.

We are honoured to be sponsoring Retail Insiders' Digital Innovations Report for the eighth year running, especially in a year that has seen unprecedented changes. The lack of predictability and the need to swiftly adjust to the impact of COVID-19 hasn't deterred retailers from innovating to overcome the toughest of challenges.

In this report, you will see a number of organisations that have truly adapted to this abruptly changing environment, introducing innovative solutions to the market. You'll see seasoned professionals continue to develop unique digital capabilities, as well as new retailers making their mark in the industry.

At Webloyalty, we are always keen to partner with businesses looking to innovate and are grateful for the opportunity to be a part of this report, alongside Glynn Davis and Retail Insider. The future of retail has certainly accelerated this year and we are looking forward to seeing how businesses adapt further to the new hyper-connected world.

ADVISORY PANEL



PAUL WILKINSON
Senior Product Manager for Alexa shopping, Amazon

Paul joined Amazon in early 2020 to work in its expanding Alexa division after a near-decade stint at Tesco where he latterly headed up a team of product managers responsible for the software platforms used for space, range and display decisions at Tesco. This followed his previous role as head of technology research within Tesco Labs that involved finding the best technology in the market to make life easier for Tesco customers and colleagues. Paul is also an advisory board member at Smarter.



DR NADIA SHOURABOURA
Co-founder, Anko Retail Incorporated

Nadia co-founded QuanyCat 18 months ago and also sits on the boards of retailers and technology firms including X5 Retail Group, Blue Yonder, MTS Group, and Ferguson. She is also an advisor to New Mountain Capital, Berkshire Grey, Cimpress and Tosca. Prior to this, she founded Hointer in 2012, which became part of Wesfarmers. This followed an eight-year stint at Amazon where she had an influential role as technology vice president of its global supply chain and fulfilment platform where she worked closely with founder Jeff Bezos.



MARTIN NEWMAN
Founder - The Customer First Group

Martin has more than 25 years of experience within the retail sector and currently runs The Customer First Group that champions the consumer. Prior to this, he founded leading agency Practicology that was successfully sold to Pattern. He previously held roles including head of e-commerce for both Burberry and Ted Baker. Martin is currently involved with Scout Store, Downyourhighstreet.com, Academy of Robotics, In Kind Direct, Clearpay UK and Yext.



TUGCE BULUT
Founder & CEO - Streetbees

Tugce founded StreetBees in 2015 in order to pursue her passion for the power of data and the positive change it can bring to the world. Prior to this, she spent six years as a strategy consultant at EY-Parthenon advising technology and consumer companies on how to accelerate growth in international markets. Tugce is a published author and an investor in Workinton Co-Working Space.

ADVISORY PANEL



JAMIE CRUMMIE
Co-founder - Too Good To Go

Jamie co-founded Too Good To Go in 2016 and it has become the world's largest marketplace for surplus food. He has helped build out its activity into 15 countries and 40 million users. Jamie was named a Trailblazing Activist in the 50 Next class of 2021, One Young World's Entrepreneur of the Year in August 2020, one of Forbes 30 Under 30 in Europe in February 2019 and was shortlisted for the Entrepreneur For Good Award at the Natwest Great British Entrepreneur Awards 2019.



DANIEL LUCHT
Global Research Director, Research Farm

Daniel leads a team of analysts and consultants at Research Farm with a remit that includes developing strategic content and new revenue streams, as well as corporate planning. He has over a decade of experience analysing the sector and identifying the latest industry trends, working with major FMCG companies and retailers. He previously worked at Verdict Research and Euromonitor International.



MIYA KNIGHTS
Global Content Strategist - Poq

Miya undertakes a variety of roles including global content strategist at Poq and publishing Retail Technology magazine. This follows a near-three-year spell at Eagle Eye where she worked directly with the CEO to build the business across the retail and leisure sectors. Earlier experience included senior analyst roles at Planet Retail and IDC Retail Insights. Miya is the co-author of two business books.



BLAIR FREEBAIRN, FOUNDER
Founder - Geolytix

Blair founded Geolytix in 2011 with a focus on helping businesses solve problems where location matters. It now works with many leading retailers and hospitality operators. This followed a three-year period as principal architect for EMEA at Pitney Bowes Business Insight and most tellingly two years as global head of analytical data at MapInfo UK. Earlier in his career he held research and market intelligence roles at Rank Gaming and Mecca Bingo.



STEVE ROBINSON
Non-executive director and consultant

Steve holds a number of positions including founder of We Sell Sleep and Channel Mum, and is a venture partner at Downing. Prior to this, he held a variety of senior retail roles that have given him extensive digital experience including CEO of Achica, customer director at B&Q, CEO at M and M Direct, and finance director at Argos.



JIM MANN
Director of acquisitions - Thrasio

Jim leads acquisitions for Thrasio, the leading acquirer and investor in Amazon and e-commerce brands, which he joined a year ago. He identifies FBA (Fulfilment by Amazon) sellers to join the business and ensures the targets are strategic and brand value-driven. Jim brings experience from working in various leading consultancies until 2014 when he started his own successful business OBrands on Amazon that he ran for six years.



METHODOLOGY

Consultation was undertaken with many individuals over the course of the past 12 months from all areas of the retail industry including analysts, consultants, advisors, investors, senior executives, and technologists.

From this rich well of knowledge was sourced a variety of digitally-driven innovations that helped build an initial long list of potential constituents of the final report. This was reduced down to 60 innovations from around the world and each one was scored independently by members of the Advisory Panel on four different criteria.

Collation of these scores across the criteria helped produce a ranked list of the 60 innovations. The final report contains this list as well as a Top 20 list of innovations for each of the individual criteria.

1. HOW INNOVATIVE?

What level of innovation is being demonstrated in the solution? The score will be determined to some extent by whether it is truly out there on its own leading the pack or whether there is competition from other similar innovations.

2. HOW POTENTIALLY COMMERCIAL?

What commercial value has the innovation delivered to retailers using the solution to date and what value could it potentially create for retailers in the future if widely adopted?

3. WHAT POTENTIAL BENEFIT?

What is the level of benefit the innovation is delivering with the retailers' organisation? Is it having a material impact that could also potentially increase over time?

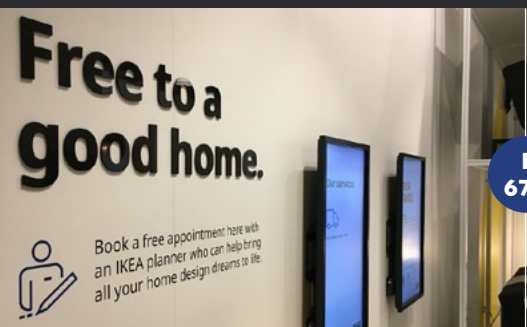
4. WHAT POTENTIAL INFLUENCE?

What is the level of impact the innovation is having, or could potentially have, on the retailers using it and possibly on the broader retail sector? What impact could the innovation have as the proposition is built out and it is possibly adopted more widely in the marketplace?



INNOVATION RANKINGS
TOP 60 GLOBAL INNOVATIONS

I
667
POSITION
SCORE OUT
OF 667



1
671

IKEA Studio

The Scandinavian home décor retailer has taken its app development to the next level with the launch of IKEA Studio. Whereas the Place app only allowed consumers to place single virtual items in rooms, the Studio enables whole room design using the LiDAR sensors in an iPhone. The sensors map out the measurements of a room leaving white boxes where it detects furniture is already in place. Finished designs can then be exported in either 2D or 3D with features such as lights turned on or off and items placed on top of each other.



2
665

Amazon Grocery stores

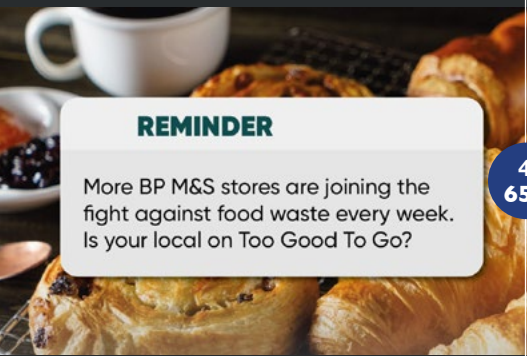
Amazon has continued to hone its grocery store model as it rolls out its Fresh stores in the UK. As it perfects the technology, Amazon is building ever-larger outlets in the US kitted out with the required cameras and sensors. Within the outlets, the smart Dash carts that automatically track a customer's orders are now hooked up to Alexa thereby offering help with product information and recommendations. As Amazon rolls out further physical stores there is the potential for it to use these as fulfilment centres for local grocery deliveries. This would provide tough competition for the many quick delivery providers that have sprung up recently.



3
660

Hudson Travel Just Walk Out stores

Airport shop operator Hudson Travel has teamed up with Amazon to use its Just Walk Out technology in a test store in Dallas Airport called Hudson Nonstop. The new format eliminates the need for employees on tills although it is promised that such stores will not be totally unmanned and that staff will instead become more sales-focused. On entering the store, customers scan their payment card, then take the items they require and simply leave without any queuing. Helping link some of these in-store elements together is a solution from Flooid.



4
650

TooGoodToGo / BP

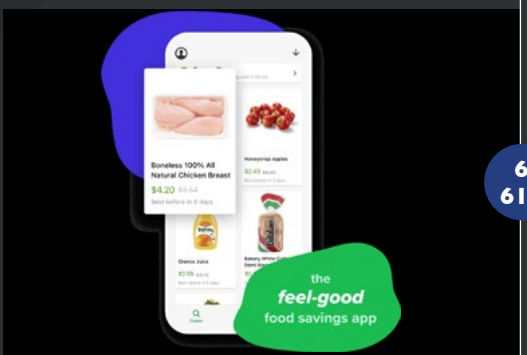
Food waste app TooGoodToGo has remained a major force in connecting unsold food from retailers with consumers. A trial project with BP via a number of its Wild Bean Cafes and BP-owned M&S units has now been extended to the entire estate of 292 stores. Customers are offered a 'magic bag' of food nearing their sell-by-dates for pick-up at an allotted time. BP has also used the company to sell unwanted seasonal merchandise such as Hallowe'en and Christmas items. TooGoodToGo has also partnered with an impressive number of convenience stores leading to a 500% increase in the number of items saved from such stores compared with last year.



5
622

X5 Retail / Green Dot smart label

In late 2020, Russia's largest food retailer X5 Retail announced it was to start using Green Dot smart labels on its food in 910 of its supermarkets – the first retailer in Europe to do so. The Green Dot technology has been developed by Israeli start-up Evigence and uses a system of sensors to track the temperature and storage conditions for each item. This information then provides an actual 'use by' date rather than the one on the packaging. The aim is to cut waste in its stores by reducing the need to throw items away because of the date on the packaging. Chemicals in the sensors change colour to illustrate the product's freshness in real-time.



6
615

Stop & Shop / Flashfood app

Stop & Shop, which operates around 400 units in Massachusetts, has partnered with the Flashfood app to push notifications to its users on deals involving food nearing its expiry date in an attempt to add value for customers and reduce food waste costs. Initially trialling in four stores, users receive offers on perishable goods and can then buy the products directly via the app. Pick-up is via a specially designated Flashfood zone in the participating Stop & Shop stores.



7
610

Tesco / Loop

Tesco, Carrefour and Coca-Cola are just a few of the retailers trialling the Loop platform, which will enable brand-specific, customised containers to be collected from consumers before being cleaned, refilled and re-used or recycled if re-use is not an option. It aims to offer a zero-waste option for some of the most popular consumer products. The system was unveiled at the World Economic Forum in Davos and developed by TerraCycle.



8
609

Amazon One palm payments

After piloting the Amazon One palm payments technology in two of the company's cashierless stores in Seattle, it is now being rolled out to further outlets. After linking their handprint to a credit card, shoppers are able to enter Amazon stores and pay for their goods by simply waving their hand over a palm scanner. Such biometric solutions are regarded as less intrusive than facial recognition and are deemed to be more accurate than other solutions such as fingerprint scanning. Amazon says its One solution is merely one of a number of payment options for its customers.

INNOVATION RANKINGS
TOP 60 GLOBAL INNOVATIONS



9
609

Walmart InHome + doorstep delivery

Walmart successfully launched an in-home delivery service in three venues across the US. After sign-up customers receive a smart lock for their house or garage door while Walmart delivery employees use a one-use code to enter the building. Employees wear body cameras to record the delivery and consumers can view a live stream of the drop-off or watch later via their smartphones. Walmart hopes to enhance the service whereby people can leave unwanted items for re-pick-up without labels, boxes or any return fees. In an additional trial, Walmart is also delivering to coolers situated outside homes that it provides to customers. The ‘home valets’ have three temperature-controlled areas and are unlocked by employees with a special device.



10
605

OLIO food waste app

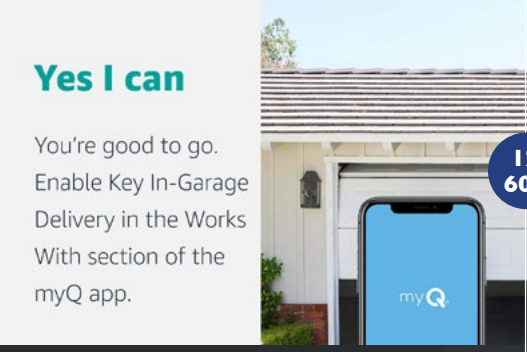
The food waste app has massively expanded its impact on the back of Covid-19, which has driven more of a sharing economy. The app, which enables people to connect and share their surplus food and household items, doubled its users to four million during the pandemic and the number of food items listed each month increased from less than 300,000 to over 1.5 million. Around half of all listings added are now requested in less than 30 minutes. OLIO has also struck major deals with the likes of Pret A Manger and Tesco to distribute the surplus foods from across their estates. A new feature this year is OLIO MADE that involves people selling their homemade foods on the site.



11
604

Aura Blockchain

With the global revenues from counterfeiting predicted to rocket to \$991 billion by 2022 three luxury brands (Cartier, LVMH and Prada) have jointly launched the Aura Blockchain Consortium to give consumers an electronic certificate of authenticity when they purchase their goods. Other Blockchain-powered provenance features include the ability to take a photo and store it within the ledger when returning goods to prove that the quality has not deteriorated since receiving the goods. Client data is encrypted on the Aura Blockchain and may also facilitate resale in the luxury market in the future. The Consortium is inviting other luxury brands with an interest in eradicating counterfeiting to join up.



12
603

Amazon Key In-Garage Grocery Delivery

Having launched in-home deliveries via its Amazon Key service to mixed reviews, the company has recently been focusing its attention on delivering to people’s garages instead. Customers need a compatible garage door opener or the myQ Smart Garage Hub that connects to the myQ app with Key. The groceries are then delivered into the garage and customers can be notified by the Amazon app. The service proved popular during Covid-19 as some people preferred non-contact delivery and demand for grocery deliveries increased, which prompted Amazon to roll out the service to 5,000 US cities and towns.



13
593

Walmart / TikTok Livestream

Walmart initially partnered with TikTok to pilot a new live-streaming shopping experience in the US on the video platform for clothing that attracted seven times more views than it had anticipated. This led it to repeat the exercise to promote beauty products. This highlights the retailer’s growing interest in live streamed shopping that involves viewers watching an event including things like beauty or clothing tips alongside feature products that can be bought directly in the TikTok app. Walmart has plans to bring more such shopping experiences to TikTok for its customers as it broadens the channels through which it engages and sells products.



14
591

Costa Coffee contactless ordering

Shortages of employees and the desire for interaction-free transactions as a result of Covid-19 have helped drive the ongoing success of Costa Express machines. The next development involves the roll-out of mobile contactless across more than 9,000 of the kiosks scattered across the UK. Customers open the Costa app, scan a QR code on the machine, choose and customise their drink, before the payment details are shown on the touchscreen. This seamless experience is a first within the UK coffee machine industry.



15
583

PayPal / Happy Returns

In a bid to attract new customers PayPal has bought Happy Returns – a US-based start-up – that allows consumers to return online bought goods in person to a range of brands with which it is partnering. Happy Returns currently has 2,600 drop-off points allowing shoppers to get either instant refunds or exchanges on brands like Evolve and Everlane. PayPal also emphasises the environmental benefits of Happy Returns’ reusable tote bags instead of cardboard packaging while consumer benefits include no-label printing and instant money back instead of a wait.



16
580

InFarm

Indoor farming specialists InFarm, which has hitherto specialised in remotely controlled and very small lab-farm units where customers pick their own fresh salads and herbs, has developed a much larger unit for use by major retailers who will look after the plants themselves. The ‘growing centres’ are 18 metres tall and use 95% less water than soil-based agriculture and 40% less energy than the smaller units. At the same time InFarm has cut several deals, including with Weezy, to provide online food retailers with fresh herbs and salads grown in its grow-house in North London.

INNOVATION RANKINGS

TOP 60 GLOBAL INNOVATIONS



17
579

Thriftify charity marketplace

Thriftify launched in the UK in May 2021 with the objective of connecting charity shops with consumers. The app, which already operates in Ireland where it covers 95% of charity retailers, has UK tie-ups with Sue Ryder and Oxfam among others. It is also integrated into eBay, Google Shopping, Amazon and Facebook Marketplace and is in talks with Depop. The app lets users browse and purchase charity shop items online while for the charity stores, it offers a way of obtaining maximum value for items from a far wider audience than from a single outlet.



18
576

TULU Rental

TULU is a smart-tech platform which operates in around 30 buildings in Israel, the US and Europe and has 10,000 users. Founded in 2019 with the strapline 'Own less, live more', it exists to provide tenants in these buildings with on-demand access to thousands of electrical appliances, groceries, entertainment devices, and other commonly needed household items. Users browse the app and then scan an item's QR code to rent it for around three days. Internet of Things data retrieval allows users to know in real-time whether something is available or not.

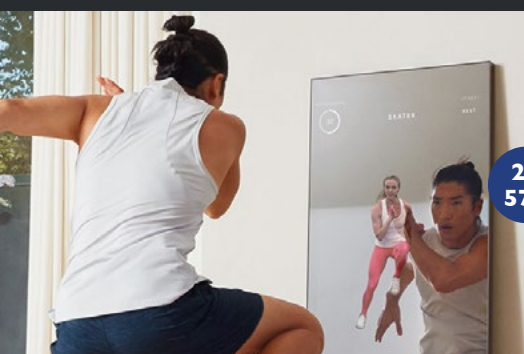


Gucci Virtual 25

19
575

Gucci / Wanna Kicks

The app from Eastern European-based AR start-up Wanna Kicks superimposes perfect 3D renders of trainers from the likes of Gucci, Reebok and Nike onto customer's feet to enable them to see how the shoes might look before purchase. Gucci was the first major brand to license the software try-on tech. The app first started out as Wanna Nails but soon moved into shoes and has proved a hit with brands that report a substantial increase in engagement and conversion. Product recommendations can also be pushed through the Wanna Kicks app.



20
574

Lululemon / Mirror

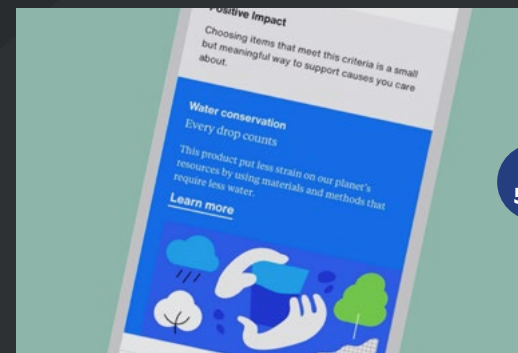
Canadian yoga and sportswear retailer spent \$500 million on acquiring the smart home gym Mirror, which it is now selling in 18 of its stores and are also available for use by customers in-store. The home-fitness start-up streams personalised workouts of all kinds through a mirror-like screen and gives Lululemon an opportunity to invest in a future without physical stores and to fully immerse its devoted consumers into its lifestyle. The acquisition of Mirror puts Lululemon and its products in front of consumers every day and will allow it to grow its community and brand engagement.



21
573

Karakuri / Ocado

Food preparation robot developer Karakuri unveiled its DK-One product in late 2020, which included investment from online grocer Ocado. Its enclosed robotic arm has initially been designed to make breakfast bowls for guests and so would obviously appeal to hotels, but it is also being pitched at supermarkets, restaurants and canteens. Up to 18 ingredients of any type can be dispensed per installation, with the robot using sensors to analyse the customised food it is preparing with no wastage and no errors. It could free up employees to undertake less repetitive tasks.



22
573

Zalando shop by values

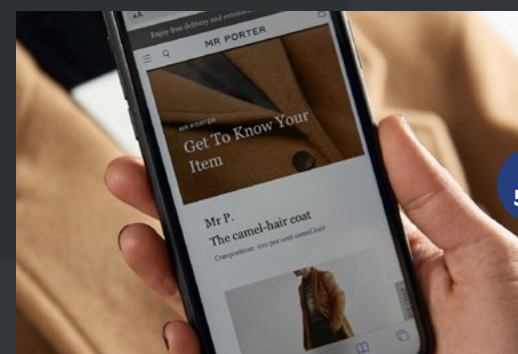
The pan-European fashion retailer has upped the stakes in sustainability purchasing by launching a new 'shop by values' search platform across online and stores. Consumers can now select to view products that adhere to values like water conservation, materials reuse, or worker conditions. In a move that also links to personalisation, Zalando identified a gap in customers' understanding of what ethical in fashion means so the company is hoping that a selection filtered by the customer's own ethical preferences will make searching for the relevant products easier.



23
572

McDonald's / Apprente voice recognition

In June 2021 McDonald's began to test automated drive-thru ordering in 10 of its Chicago restaurants. The automation is one of the first initiatives to come from its Apprente acquisition and is so far proving around 85% accurate in correctly taking voiced orders and being able to recognise almost all of the possible order permutations. Interestingly, McDonald's discovered a need to train its staff not to intervene, which will be useful as the company looks to implement the computer ordering service in more branches over the next two to three years.



24
566

YNAP digital ID

Luxury fashion brand Yoox Net-A-Porter (YNAP) has developed a 'digital passport' for clothes in all its private-label collections, which will enable consumers to keep track of essential information such as what it is made of and where it was made. Currently trialling across two collections with a full roll-out planned, the company hopes that as the idea develops new stages of the garment's life such as resale or repair could be digitally stamped onto the passport. This will allow consumers greater clarity over the provenance and working cycle of their YNAP clothing. QR codes will be tailored into the clothes, which users can scan for information and content such as care instructions in order to lengthen the garment's life.

INNOVATION RANKINGS

TOP 60 GLOBAL INNOVATIONS



25
566

Morrison's / Next C&C pods

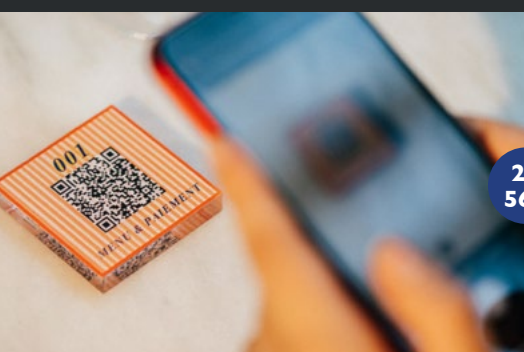
Morrison's has partnered with fashion and homeware retailer Next to launch a number of Click & Collect delivery and return pods located in the car parks of its stores. The pods enable shoppers to collect and return online purchases from the high street retailer in a contactless manner. Such an initiative provides Next with the opportunity to place the pods in areas where it does not have a store while for Morrison's the prediction is that these Next shoppers will spend some time in its stores when visiting the pods.



26
564

Royal Mail / DronePrep drones

Royal Mail has finally entered the drone delivery sphere with a pilot scheme beginning in May 2021 to use the automated aerial vehicles between the UK mainland and the Isles of Scilly. Covid-19 testing kits and other mail will be included in the trials, which are funded by UK Research and Innovation. A larger drone built by Windracers, and able to cope with difficult nautical conditions, will take the mail over the sea to the islands. From there a smaller drone built by Skyports will fly between islands to final destinations. Royal Mail hopes that the drones can be used to access more isolated communities across the network in due course.



27
564

Big Mamma Sunday payment solution

The drive to be the quickest – and most cost-efficient – payment solution for restaurants continues with the launch of Sunday – co-founded by the people behind the Big Mamma chain. Promising to work in under 30 seconds and at a lower price than the competition, it has initially been used in the global Big Mamma portfolio before being adopted by other operators including Corby & King. The solution, which involves scanning a QR code, saved customers an average of 15 minutes, increased table-turn by 12%, and generated a 40% rise in staff tips.



28
561

Bumped

Fintech company Bumped works with a variety of retailers and service providers including L'Occitane, Lyft and Kiehl's to reward their customers in fractional ownership of stock when they make purchases from them. Consumers are given fractions of shares in the quoted companies they are buying from when using the Bumped solution. This helps engender loyalty to these businesses. Bumped has stated it is on a mission to create an ownership economy through the use of its app that gives shoppers access to a growing number of retailers who have adopted the solution and share the Bumped philosophy.



29
556

Levi's / Trove resale programme

Trove, which helps retailers set up resale programs, is working with a plethora of retailers as brands rush to launch resale platforms to tap into sustainability concerns. In one of the biggest tie-ins, it helped Levi Strauss set up SecondHand in late 2020. Under the scheme, customers who bring in pre-worn Levi denim items are given a gift card worth the estimated value of the donated items on the resale platform. Trove runs the back-end operations involving cleaning and processing and logistics for the SecondHand proposition.



30
555

Ted Baker Live video shopping

Since March 2021 customers at Ted Baker have been able to enjoy interactive, shoppable live broadcasts on its website. Viewers can shop, comment, ask questions, and send likes in real-time. All this is done in conjunction with live-stream platform Bambuser, which reports that the average visit lasts nearly nine minutes. A whole schedule of events is planned including appearances from influencers and in-house personnel as Ted Baker tries to amplify its digital customer engagement capability.



31
552

Ocado / Foodmaestro

Ocado customers with dietary requirements and allergies are being catered for via a new function on its website, which enables them to set up a food profile using a checklist of 15 intolerances such as gluten and egg. It will be flagged up automatically if a customer adds a grocery item that includes any of the chosen intolerances. This tool is powered by US-based Foodmaestro and dramatically enhances the speed of shopping and user experience for shoppers with specific dietary requirements.



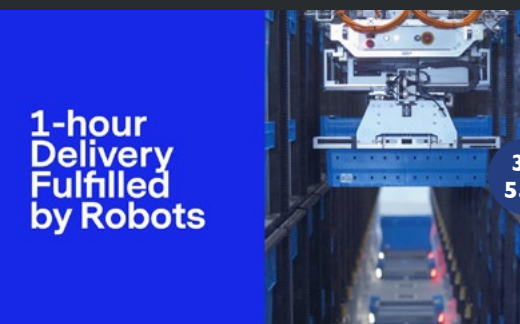
32
551

Nike AR avatars

The sportswear giant has taken a slightly different approach to digital try-on solutions by using AR holographic avatars (developed by Omnivor) to allow purchasers to see how well items would fit them. Users click on the Nike Virtual View option when browsing the Need It Now collection and see an avatar with a similar body shape to their own wearing the clothes with 360 degree movement capability. To initiate the option customers first scan a QR code before being asked to choose their usual size. While in the viewing option they can change the size and put any products into their basket.

INNOVATION RANKINGS

TOP 60 GLOBAL INNOVATIONS

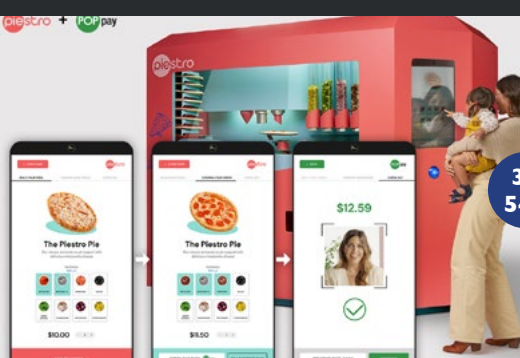


33
551

1-hour
Delivery
Fulfilled
by Robots

Walmart / Fabric micro-fulfilment warehouses

Deciding that beating Amazon's immense logistics empire is a losing game, Walmart is instead betting on small and investing in Israeli-based start-up Fabric's mini-fulfilment centres, which can be run in-store. Within two years, Walmart expects to have more than 100 of these centres where a small number of human staff work alongside multiple robotics solutions assembling orders much more quickly than humans alone. Fabric uses two kinds of robots - rack bots, which retrieve the items from thousands of shelves, and floor bots that take them to human-operated packing stations. Walmart is hoping the fast and efficient micro-centres could also be used for click & collect orders, kerbside collection and pick-ups from lockers.



34
546

Piestro Pizza

Piestro Pizza is a smart pizza vending machine powered by bots, which launched in 2020 and has just added another tech layer with a facial recognition payment tie-up with Pop ID. Unlike most pizza offers, the AI element in Piestro Pizza enables the technology to make the product from scratch. Once pizzas are ready they are stored in a food locker attached to the vending machine that customers unlock via their phones to retrieve their pizzas. A delivery option is also being added involving robots making the entire transaction human-free. Suitable for hospitals, malls, educational campuses and other closed communities, operators can either use a pre-formatted machine or buy a white label machine to customise themselves.



35
546

Walmart employee app

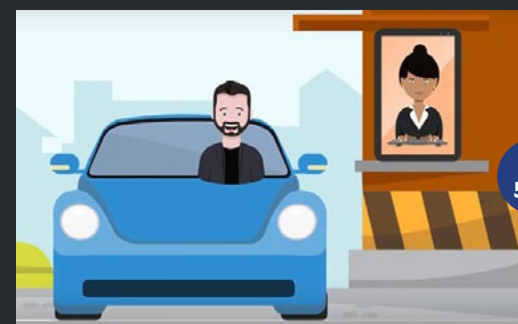
Walmart has launched an app specifically designed for its employees that allows them to clock in digitally, communicate with backroom staff, and answer customers' queries quickly. To facilitate and encourage take-up, the retailer is issuing 740,000 Samsung smartphones free of charge to its employees (nearly half of its US workforce). Until now most employees have shared company-owned devices but it is hoped that this new app with AR features — which only operates when workers are on shift — although they are free to use the phone personally in their own time, will free workers from time-consuming menial tasks allowing them more time for customers.



36
543

Asda Electronic shelf-edge labels

UK grocery chain Asda is using Stevenage as the location for its most extensive trial yet of electronic shelf pricing. As many as 23,000 e-paper tags have been installed in the store thereby allowing whole sections at a time to be remotely and electronically updated. The supermarket has worked with Panasonic and SES-Imagotag on the trial, which will also attempt to allay concerns over surge pricing while researching how consumers respond to rapidly changing prices.



37
543

Bite Ninja remote working

Bite Ninja seeks to connect restaurants with staff who can work via Zoom and take orders in restaurants during busy periods or when there are staff shortages. Food providers can access Bite Ninja's team of trained staff in a moment to begin taking orders while the benefits for employees, who would otherwise not be in the market for restaurant-shift jobs like stay-at-home mums, is obvious. As the pandemic eases and staff shortages become more acute, Bite Ninja seeks to work with more restaurants.



38
542

Nike CryptoKicks

As trainers increase in value, Nike has created its own blockchain solution CryptoKicks. It allows cryptographically-secured digital assets to track ownership of the physical shoe and also gives the owner a digital asset to use in the virtual world. As the value of trading in the virtual world gathers pace and increases in value exponentially, Nike is ensuring it stays at the forefront of innovation in this area with its CryptoKicks solution.



39
542

Sainsbury's Nectar data / NHS

During Covid-19 lockdown periods, the major grocers came under severe pressure as demand for their home delivery services soared with the result that elderly people and the vulnerable found it difficult to book time slots and receive essential food supplies. Sainsbury's used its Nectar loyalty card data and proactively engaged with the NHS in order to develop an effective solution to identify those customers in most need of grocery home deliveries. This collaboration helped the NHS develop its capabilities and create a platform from which to share its data with the relevant parties to ensure food supply was prioritised to the most needy.



40
535

Lidl Plus app - best time to shop

Avoiding the crowds in supermarkets became an important aspect of shopping during Covid-19. The Lidl Plus app now features an instrument to allow customers to see real-time shopper numbers and to avoid busy times if needed. Users select their nearest store from the 'Best Time To Shop' tab and can then see a bar chart of hourly customer figures. The simple interface shows the busiest times coloured in blue while quieter hours are shown in green.

INNOVATION RANKINGS

TOP 60 GLOBAL INNOVATIONS



41
534

Estee Lauder / Snapchat AR

In May 2021 beauty conglomerate Estee Lauder debuted a new Snapchat partnership using AR try-on technology to allow customers to try digitally before they buy various products, including lenses for 20 different lip and eye products from the MAC brand. Snapchat itself works with Perfect Corp on the AR side. Users scroll through the list to test the shades and then click on a link embedded in the lens to purchase straight away. Virtual try-on is proven to promote longer dwell times and higher online sales as well as providing companies like MAC with better analytics on who is trying on what and when.

Sainsbury's / Whisk

UK-based food technology platform Whisk partnered with Sainsbury's in January 2021 to offer consumers the chance to turn any recipe from Whisk's network of publishers, brands and recipe sites into a smart shopping list. From this it is possible to instantly purchase the ingredient for a delivery or click & collect from Sainsbury's. As people have been cooking more at home the tie-in seeks to align internet-savvy cooks with shoppable recipes. Users can save a recipe from anywhere into a personal recipe box and then export the ingredients list to an interactive shopping list.

Burberry social retail store

In the summer of 2020 Burberry opened a 'social retail' store in one of its key markets – China, which will form a seamless digital and physical experience for users to access its brand. The store is powered by technology from Tencent and is made up of a series of spaces for customers to explore. This exploration is facilitated by a WeChat mini programme that unlocks content for users as they walk around the store and is also used for client services, appointments and event information. There is also a social currency feature on the programme, which earns customers extra rewards via an animal avatar that evolves with more engagement and all products come with a QR code leading to further product storytelling.

Feelunique / EVRELAB

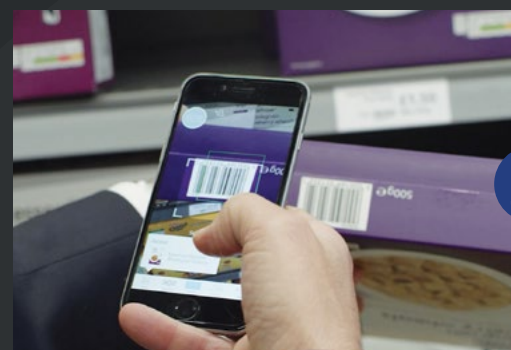
The online beauty platform Feelunique continues its tech development while also tapping into sustainability/provenance concerns through a joint-venture with EVRELAB. The tie-up aims to provide customers with much more extensive information on the ingredients used in products sold on the platform. When a consumer clicks on a product ingredient a pop-out box from EVRELAB appears detailing in 'plain English', as well as more scientifically, what an ingredient is and where it has come from. The eventual aim is to decode every product listing and have a full glossary of all the terms used in the Beauty Decoded area of the Feelunique website.



45
526

Wholee Prime ethical shopping app

The Singapore-based app Wholee Prime works with around 100,000 manufacturers and claims to offer its users no hidden costs – only charging the manufacturer's stated price on a range of ethical goods. Setting itself as an alternative to what it says are the big mark-ups made by the likes of Amazon and eBay, Wholee offers a wide range of non-food items including fashion, car accessories, stationery, jewellery, health and cosmetics ranges. In February 2021 it recorded a 178% growth in monthly sales. For a membership fee its users can access over one million products.



46
525

DNANudge

The health and lifestyle tech company continues to develop its pop-up services, which offer shoppers fast DNA analysis and health advice. Customers at John Lewis in Kingston were offered a home swab pack to return to the DNA lab. Results (and pointers on which foods to encourage consumption or avoid) were then sent back via the DNA app to users' phones. Customers can also scan any food products' packaging via the app and have personalised and healthier swaps suggested for their own unique DNA needs.



47
524

HURR Collective

Peer-to-peer rental site HURR Collective came into its own during the last year as it set up joint-ventures with Selfridges to offer its technology and platform to a wider audience. The retailer brought HURR in for a six-month physical in-store pop-up, which proved so successful that the venture – also powered by HURR's white label solutions – has now also gone online. Selfridges Rental Edit is curated by the Selfridges team and features a range of different rental periods starting with £20 for four-days usage.



48
521

Tossed Speedy Greens

Tossed was bought out of administration in late 2020 by its management team who have lost no time in setting up a new venture using the trusted Tossed brand, coupled with smart fridges to deliver a smart healthy-eating vending machine. The fridges, which are stocked daily by Tossed staff, can either be smart fridges for private usage or automated retail fridges for high footfall public spaces. Payments are contactless and orders for salads, wraps, juices and protein shakes can be selected via the users phone while the fridges contain in-built hand sanitizer, making this an ultimate Covid-19-proof facility.

INNOVATION RANKINGS

TOP 60 GLOBAL INNOVATIONS



49
518

Facebook e-commerce

Commerce has become a much bigger focus for Facebook over the past year with a raft of new developments introduced across its platforms. It has introduced its Shops functionality to WhatsApp that will enable businesses to present their entire shop within the messaging app. The Shops product listings are also been introduced to Facebook Marketplace. In addition, to help with the discovery of products on Instagram, there is to be the equivalent of Pinterest's Lens visual search tool added to the Facebook-owned property. Facebook is also experimenting with Live Shopping and continues to develop the functionality of its AR glasses.

When it's so easy to order junk on other food apps, it's awesome to have such an incentive to eat healthy. This app couldn't come soon enough!

Matthew, 18

50
511

Smash app

Smash (Save Money And Stay Healthy) is an app that aims to encourage healthy eating from 13-to-24-year-olds by giving them discounts and promotions on healthier food from brands such as Graze, Meatless Farm and Deliciously Ella as well as via less fattening dishes in restaurants like Zizzi and Wahaca. Users access the app by taking a selfie to prove their age, they can then browse a curated menu of products and discounts available from nearby participating retailers and food providers. To redeem in-store offers, youngsters print-off vouchers, in restaurants a QR code needs to be scanned, and for online purchases they use promo codes.

Kellogg's / Chowbotics vending

An innovative pairing from the cereal giant and the electronic vending machines provider is giving students in one US University the chance to create their ideal personalised cereal combinations. The so-called Bowl Bot allows consumers to choose from seven menu options or totally customise a cereal bowl with toppings and fruit. The bot takes around 90 seconds to assemble the order, which can be placed through the touchscreen on the machine or via the Chowbotics app. For blind and partially sighted customers, Kellogg's is also set to package its cereals in boxes that use NaviLens technology that allows smartphones to detect a unique on-pack code that enables the playback of detailed labelling information.

Cult Beauty / Provenance

Cult Beauty relies on communicating social and environmental impact information to its shoppers and to handle this in a standardised, scalable way, it uses the Provenance solution across more than 80 brands. Provenance uses blockchain to hold data points on products related to things like ethical certifications and the performance of auditing. By embedding these 'Proof Points' on its website it provides customers with credible information about product and brand impact at the point of sale. Customers can click onto each claim to learn more and see supporting evidence or third-party proof. The partnership has enabled Cult Beauty to lead the beauty industry by empowering shoppers with the information they need to make better choices for people and the planet.

52
508

Track. Improve. Offset.

Take control of your food shopping's climate impact.



53
506

Evocco carbon footprint app

As consumers grow more concerned about the provenance of the food they buy, Irish start-up Evocco has developed an app that will scan a user's food shopping receipt and calculate the carbon footprint of their purchases by matching the items against a statistical database created by Eaternity – a company that helps the food industry measure its carbon emissions. The app helps consumers take personal responsibility for choosing food that uses less energy and resources. Shoppers are also given the option to offset their shopping by contributing to a not-for-profit that plants new woodland.



54
501

Gucci / Roblox

The old world of high-end fashion fuses together with the new world of gaming platforms with the launch of Gucci Garden. In an attempt to reach younger consumers more accessibly, developers created a game with a series of virtual spaces featuring Gucci branded goods within a Roblox setting. During the two-week pilot, users could buy Gucci costumes and accessory designs for their avatars to use for virtual events. There is also the possibility of resale if demand is high enough. The Dionysus Bag with Bee was the best-selling product.



55
498

Made shoppable Apartment

Furniture retailer Made operates seven showrooms around Europe that support its predominantly online model. Its latest iteration is an apartment in Amsterdam above its store in the city. As well as being able to book a physical visit, there is also the opportunity for online customers to explore the apartment and discover details behind the products and their designers. The space can also be explored via Google Cardboard virtual reality viewer and on Instagram using its AR filter. From within these virtual spaces the products within the apartment can be purchased.

9:41

Grocery Neighbourhour

iMessage
Today at 9:30 AM

The Grocery Neighbour store is on your street!

56
497

Grocery Neighbour

As the pandemic recedes there are certain themes that may continue – including the rise in local shopping and an ongoing fear of large crowds. A new concept piloting in Canada is Grocery Neighbour that aims to expand aggressively to take advantage of both these trends. Essentially it is a convenience store on wheels, with one entrance door and one exit door, which travels to the homes of users making it an ultra-convenient retail option. Each truck will only serve a small area meaning that over time it will hone its offering to the exact needs of its specific customers.

INNOVATION RANKINGS

TOP 60 GLOBAL INNOVATIONS



57
494

Pinterest enhanced shopping capability

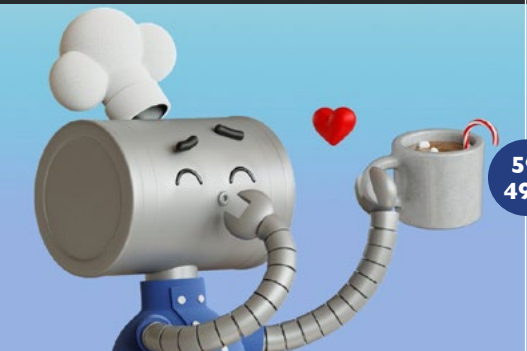
Pinterest continues to try to position itself as a viable option for brands looking to engage with customers on platforms other than Google and Facebook. To that end, it has recently introduced new features in its shoppable range including the Shopping List – which allows users to access all their saved pins in one list. Embedded within the list are the items’ reviews, prices and delivery costs as well as real-time info on whether any are on special offer. The Shopping List is just the latest shoppable tool from Pinterest, which last year introduced Shop from Pins – which takes members straight to a specific product checkout, Shop from Board – a tab that analyses pins and searches for similar products, and Shop from Search - that enables users to shop for in-stock items direct from the search bar.



58
491

Under Armour digital store

Sports attire retailer Under Armour has opened a new flagship store in Dubai featuring a host of technology innovations for the brand. A 3D foot scanner ensures all customers get a perfect fit while smart screens offer personalised workouts. The brand worked with retail consultancy Green Room to create a high-tech store, which integrates the retailer’s MapMyRun app into the customer experience, with users able to download interactive fitness programmes for example. The store also provides a chill-out lounge with charging stations and hologram map of Dubai.



59
490

Kroger Chefbot

US-based grocer Kroger has introduced a chefbot as a ‘pantry maximiser’ and all round culinary coach, which can also advise customers on what to do with products they do not want to waste but are not sure what to do with. To use the service, users take a photo of the items in question and tweet it to the chefbot Twitter handle, which then confirms what it believes the food to be and sends suggestions back to the tweeter. As people are cooking more from home since Covid-19, the service also provides recipe advice for anybody looking for new dishes to cook.



60
489

Alchemista lockers

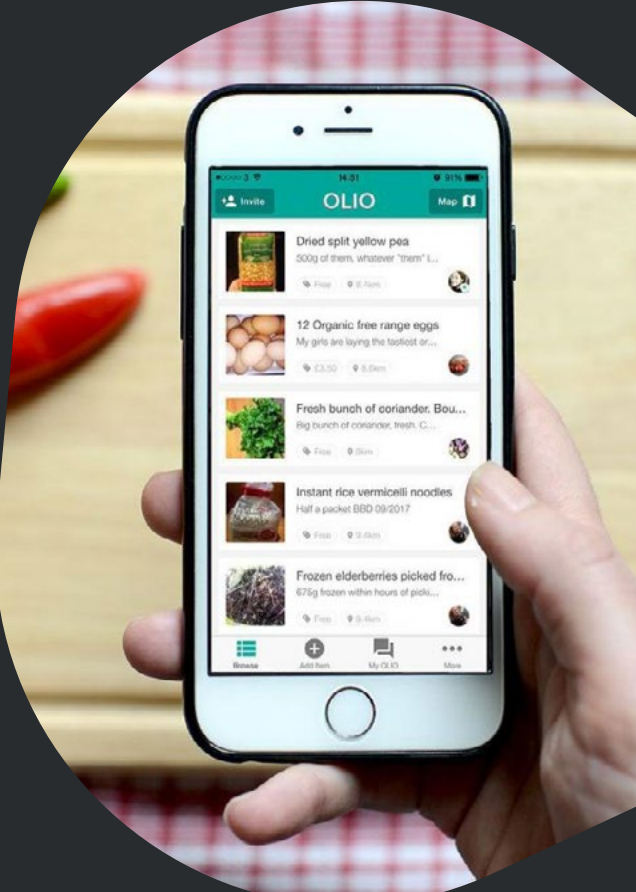
Alchemista is a corporate catering company that during the pandemic moved to design temperature-controlled food lockers that can be used across schools, universities, offices and blocks of flats to hold chef-made meals (either from Alchemista or as a white-label solution). These meals can be ambient, heated or chilled depending on the locker type. Users scan a QR code on the locker screen, which takes them to the payment after which the locker opens. There is no associated app and the process only takes around four seconds. Alchemista runs both an on-demand and advance delivery service with its larger model able to hold 19 meals.

TOP 20: INNOVATIVE

CRITERIA

The level of innovation demonstrated in the solution. The score was determined by whether it is truly out there on its own leading the pack or whether there is competition from other similar innovations.

- 1 IKEA STUDIO
- 2 OLIO FOOD WASTE APP
- 3 X5 RETAIL/GREEN DOT SMART LABEL
- 4 PIESTRO PIZZA
- 5 KARAKURI/OCADO
- 6 AMAZON GROCERY STORES
- 7 TOO GOOD TO GO/BP
- 8 INFARM
- 9 BITE NINJA REMOTE WORKING
- 10 BUMPED
- 11 AMAZON ONE PALM PAYMENTS
- 12 TESCO/LOOP
- 13 STOP & SHOP/FLASH FOOD APP
- 14 TULU RENTAL
- 15 LULULEMON/MIRROR
- 16 HUDSON TRAVEL JUST WALK OUT STORES
- 17 GUCCI/WANNA KICKS
- 18 NIKE CRYPTOKICKS
- 19 KELLOGGS/CHOWBOTICS VENDING MACHINE
- 20 YNAP DIGITAL ID



TOP 20: POTENTIALLY COMMERCIAL

CRITERIA

The commercial value the innovation has delivered to retailers using the solution to date and what value could it potentially create for retailers in the future if widely adopted.

- 1 MCDONALD'S /APPRENTE VOICE RECOGNITION
- 2 HUDSON TRAVEL JUST WALK OUT STORES
- 3 X5 RETAIL/GREEN DOT SMART LABEL
- 4 AMAZON GROCERY STORES
- 5 WALMART/TIK TOK LIVESTREAM
- 6 AURA BLOCKCHAIN
- 7 IKEA STUDIO
- 8 COSTA COFFEE CONTACTLESS ORDERING
- 9 TOO GOOD TO GO/BP
- 10 BIG MAMMA - SUNDAY PAYMENT SOLUTION
- 11 WALMART/FABRIC MICRO-FULFILMENT WAREHOUSES
- 12 ASDA ELECTRONIC SHELF EDGE LABELS
- 13 STOP & SHOP/FLASH FOOD APP
- 14 AMAZON KEY IN-GARAGE GROCERY DELIVERY
- 15 MORRISONS/NEXT C&C PODS
- 16 WALMART INHOME + DOORSTEP DELIVERY
- 17 AMAZON ONE PALM PAYMENTS
- 18 TESCO/LOOP
- 19 FACEBOOK E-COMMERCE
- 20 GUCCI/WANNA KICKS



TOP 20: POTENTIAL BENEFIT

CRITERIA

The level of benefit the innovation is delivering within the retailers' organisation(s). The innovation has a material impact that could also potentially increase over time.

- 1 IKEA STUDIO
- 2 TOO GOOD TO GO/BP
- 3 HUDSON TRAVEL JUST WALK OUT STORES
- 4 AMAZON KEY IN-GARAGE GROCERY DELIVERY
- 5 STOP & SHOP/FLASH FOOD APP
- 6 OLIO FOOD WASTE APP
- 7 COSTA COFFEE CONTACTLESS ORDERING
- 8 AMAZON GROCERY STORES
- 9 WALMART INHOME + DOORSTEP DELIVERY
- 10 PAYPAL /HAPPY RETURNS
- 11 MORRISONS/NEXT C&C PODS
- 12 OCADO/FOODMAESTRO
- 13 TULU RENTAL
- 14 TESCO/LOOP
- 15 SAINSBURY'S NECTAR DATA/NHS
- 16 ZALANDO SHOP BY VALUE
- 17 BUMPED
- 18 LULULEMON/MIRROR
- 19 DNA NUDGE
- 20 AURA BLOCKCHAIN



TOP 20: POTENTIAL INFLUENCE

CRITERIA

The level of impact the innovation has, or could potentially have, on the retailer(s) using it and possibly on the broader retail sector. The impact the innovation could have as the proposition is built-out and is possibly adopted more widely in the marketplace.

- 1 AMAZON GROCERY STORES
- 2 HUDSON TRAVEL JUST WALK OUT STORES
- 3 MCDONALD'S /APPRENTICE VOICE RECOGNITION
- 4 IKEA STUDIO
- 5 AURA BLOCKCHAIN
- 6 AMAZON ONE PALM PAYMENTS
- 7 TOO GOOD TO GO/BP
- 8 X5 RETAIL/GREEN DOT SMART LABEL
- 9 WALMART INHOME + DOORSTEP DELIVERY
- 10 WALMART/FABRIC MICRO-FULFILMENT WAREHOUSES
- 11 ASDA ELECTRONIC SHELF EDGE LABELS
- 12 WALMART/TIK TOK LIVESTREAM
- 13 TESCO/LOOP
- 14 COSTA COFFEE CONTACTLESS ORDERING
- 15 WALMART EMPLOYEE APP
- 16 PAYPAL /HAPPY RETURNS
- 17 THRIFTIFY CHARITY MARKETPLACE
- 18 YNAP DIGITAL ID
- 19 BIG MAMMA - SUNDAY PAYMENT SOLUTION
- 20 STOP & SHOP/FLASH FOOD APP



Retailinsider.com

Retailinsider.com is a free-to-subscribe blog/website that aims to adhere to its strap-line of 'Taking a look behind the obvious on the high street, online and in the City'. It's not just another news site but instead offers up a cocktail of opinions and insights on the retail industry along with the occasional leisure sector content to spice up the mix. The regular insights are complemented by a range of carefully selected columnists, and regular slots such as Q&A's with leading e-commerce & multi-channel retailers and the 'Innovative Retailers' series.

For more information please visit retailinsider.com or follow @Retailinsider on Twitter

Copyright 2021 by Retailinsider.com

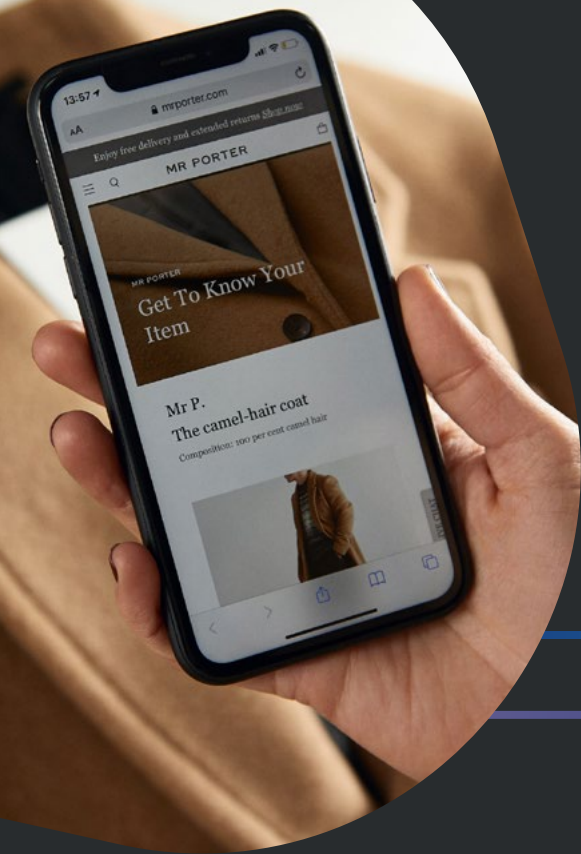
All trademarks, trade names, product names and logos appearing in this report are the property of their respective owners. All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, nor translated into any human or computer language, in any form or by any means, electronic, mechanical, optical, chemical, manual or otherwise, without the prior written consent of Retailinsider.com



Webloyalty

Webloyalty is a leading online savings programme provider. We work with over 200 retail and travel businesses internationally to help them build stronger, more profitable relationships with their customers. Through our membership programmes, we help our online retail partners' customers make significant savings each year while providing the partner with an additional revenue stream. As well as incentivising customers to make repeat purchases at the partner's site, they can also earn cashback and get great deals on everything from fashion to electronics to travel at top online stores. Webloyalty started operating in the UK in 2007 and has since expanded into France, Spain, Ireland, Brazil, the Netherlands, Mexico, Belgium and Poland.

For more information, please visit webloyalty.co.uk or follow @WebloyaltyUK on Twitter





Retail Insider

glynn@busicomm.co.uk
@glynndavis
retailinsider.com



Webloyalty

enquiries@webloyalty.co.uk
@webloyaltyuk
webloyalty.co.uk