Global Health and Wellness Digital Framework
Using the Digital Framework

The Consumer Goods Forum Health & Wellness initiative is pleased to bring together retailers, manufacturers and their partners from around the world under a collective mission to empower people to live healthier lives and drive shared value. This Digital Framework document is not a prescription nor an attempt at a “one-size-fits-all’ approach. Rather the Digital Framework is intended as a guide and source of inspiration for retailers and manufacturers as they formulate plans and objectives in their organisation towards promoting healthier lives amongst consumers.

Several ideas, enablers and business solutions are outlined and recommended throughout this document based on prevailing best practice knowledge in business and technology today. Approaches that may work for one business may not work for another. You are invited to read on and evaluate which elements of the Digital Framework work best for your respective business needs and goals.
Capgemini is delighted to work with The Consumer Goods Forum (CGF) to develop the Global Health and Wellness Digital Framework. Supporting our industry to collaborate in the pursuit of healthier lives for consumers, shoppers, employees, friends and family on a global scale is inspiring and a privilege.

Kees Jacobs
Vice President
Capgemini

Michael Petevinos
Executive Vice President
Capgemini Invent
This paper provides CGF members and all the participants and stakeholders of the Health & Wellness (H&W) initiative with a guide to how ‘digital’ can support the goal of impacting behavioural change to help people live healthier lives.

We’ll start with an overview of the H&W initiative itself, its mission and focus. We’ll then focus on the importance of behaviour change and the role digital can play. And then finally we’ll introduce our Global Health and Wellness Digital Framework and our Digital Compass, explaining how each of the country initiatives under the H&W umbrella can understand the potential role of digital as they build their own tailored roadmaps with digital an embedded part of driving their success.

Thanks go to the following for their support and direction:

- the Health & Wellness Steering Committee and in particular those companies who provided examples to this framework.
- Our Digital Steering Group:
  - Domitille Doat, Chief Digital Officer, Danone
  - Asmita Dubey, Chief Digital Officer, Consumer Products Division, L’Oréal
  - Greg Orr, VP Digital Health, Walgreens Boots Alliance Inc.
  - Catia Sousa, Global Head New Business Incubation & Digital Platform, Nestlé
- Our Capgemini partners: Kees Jacobs, Mike Petevenos and the Capgemini ASE.

We hope you enjoy the read and are as inspired as we are. All the best for your global and local collaborations and for your individual pioneering initiatives. Together, the industry can better meet the needs of its consumers/shoppers and deliver positive, impactful change.

Alex Hurd
Sr. Director Health & Wellness
Walmart

Isabelle Grosmaitre
Alimentation Initiative Catalyst Catalyst
Danone
Health & Wellness Initiative Vision

“We are a collective movement to empower people to live healthier lives and drive shared business value”

Collaboration for Healthier Lives Value Proposition

Led by manufacturers, retailers, public health authorities, and local communities, Collaboration for Healthier Lives is a global movement acting at the origin of healthy decisions: experimenting, innovating, evolving business models, and sharing data at-scale across industries so that healthier decisions become easy and habitual for people in every community around the world.
Overview of the Health & Wellness Initiative

Our industry is facing a clear call to action. People want to live healthier lives and expect our industry to play a role in helping them meet their health and wellbeing needs.

The Consumer Goods Forum’s Health & Wellness initiative has set out its mission for industry-wide and pioneering action.

This mission is based on the conviction that the consumer goods industry – food, beverage, personal care and hygiene companies; both large and small – can make a unique contribution to today’s global and local health and wellbeing opportunities. In doing so, we can legitimately support growth by addressing unmet consumer needs, building consumer trust and strengthening our industry’s reputation.

Our aim is to take a proactive, leadership role in empowering consumers globally to live healthier lives and driving shared business value.

By working together, our industry can provide support to governments and local, public health authorities in areas that include:

- Making healthier lifestyle and diet choices easier, providing affordable & accessible products/services that help people manage health conditions and feel good about themselves and their bodies.
- Collaborating across the industry to make the retail and online store the destination for inspiration to enable healthier lifestyles.
- Working with our 10 million employees to support their healthier lifestyles and help them make a difference to the wellbeing of the wider community.
- Providing knowledge and resources to support the public health agenda and the aim for better health in communities across the globe.

The private sector can, and should, help people adopt healthier lifestyles.

OUR STRATEGIC FRAMEWORK

To nudge people towards healthier behaviours

- Employees
- Stores in Action
- Digital
Helping people adopt healthier lives is all about empowering and supporting them to change behaviour. The task for any initiative seeking to improve the health and wellbeing of individuals is to understand the behavioural interventions that matter to their health and wellbeing. Research shows that there are eight specific behaviours and 15 top chronic conditions. This report focuses on addressing these behaviours and conditions.

So, how do we change behaviour? Research conducted by Susan Michie, Professor of Health Psychology and Director of the Centre for Behaviour Change at University College London, points to the three key factors of the behavioural system: Capability, Opportunity and Motivation*

Capability is defined as the individual’s psychological and physical capacity to engage in the activity concerned. It includes having the necessary knowledge and skills.

Motivation is defined as all those brain processes that energise and direct behaviour, not just goals and conscious decision-making. It includes habitual processes, emotional responding, as well as analytical decision-making.

Opportunity is defined as all the factors that lie outside the individual that make the behaviour possible or prompt it.

Planning interventions that tackle these drivers of behaviour and challenging initiatives to look for a balance across these is a guiding principle of our framework.

And the role of digital? The world around us is full of examples of how digital is changing our lives and driving changes in our behaviour.

In commercial areas, such as the rise of e-commerce changing how we shop or the ability of digital marketing to target personalised communications and build relationships with consumers.

In the social area, with the rise of new ways to consume media (on the go and when you want) or the importance of peer to peer influence through social media or peer reviews.

In sports and leisure, with the development of monitoring and wearable technologies that are tracking our performance and helping us to achieve our goals.

In politics, with well-publicised examples of creating movements through social and mobile instead of such as the rapid rise of the Podemos movement in Spain or the galvanising of revolutions during the Arab Spring.

And of course in healthcare, with the rise of biometrics, self-help diagnostics, new channels for democratising access to medical information, raising awareness, and so much more.

What do all these have in common? They pull on the drivers of behavioural change in a way that people can readily adopt and sustain. And that is the challenge for our Health and Wellness Digital Framework: to provide direction on how digital can be used as an enabler of sustainable behavioural change no matter what the goals/objectives of a specific initiative may be.

"As Members of the Board of The Consumer Goods Forum, we believe that manufacturers and retailers, by working together, have a key role to play in improving the health and wellness of consumers, employees, their families and the communities we serve”.

The Consumer Goods Forum
Board of Directors

We believe that each time we eat and drink, we can vote for the world we want. With healthier choices, education, and care for the wellness of both people, and the planet for present and future generations, we can be a catalyst for change: of course it will take a collective effort from all of us as an industry, and CGF is the platform we have to create a better world together.”

Emmanuel Faber,
Chairman of the Board & Chief Executive Officer,
Danone and CGF Board Vice Co-Chair
In Turkey, Migros has committed to work for community health and global sustainability goals. They began a major health movement to accelerate this work. In the 28 stores in 14 cities across Turkey, the company has established “Migros Wellbeing Journey” areas.

Migros is conducting an awareness raising study on balanced nutrition by observing the shopping habits of customers along with the company’s nutrition experts. They show customers a breakdown of their own purchases through Migros Mobile App and offer them personalised discounts on the food group that they appear to be lacking as a healthier living recommendation.

Migros also informs customers how to make their daily life more active with simple exercise proposals.
Walgreens Balance Rewards for healthy choices®

In the United States, Walgreens has leveraged their customer loyalty programme to encourage and reward customers to make healthy choices. In addition to earning Balance Rewards points for making purchases, getting prescriptions and immunisations, the Balance Rewards for healthy choices programme gives customers points for engaging in their health.

Customers earn points for logging physical activity (such as walking or jogging), tracking their weight, logging their blood pressure and more. The programme even allows members to automatically track this information through their favourite connected devices.

Ways to earn points

- **Link a health app or device**
  250 points per device

- **Walk, run or cycle**
  20 points per mile

- **Log your sleep**
  20 points per daily log

- **Test blood pressure**
  20 points per daily log

- **Exercise**
  20 points per daily log

- **Monitor blood glucose**
  20 points per daily log

- **Weigh in**
  20 points per daily log

- **Quit tobacco with NRT**
  20 points per daily log

Earn Automagically!

Earn 250 points for connecting a device, then track healthy activities automatically.

Health apps & devices

Manage Your Condition with Ease

Connect a glucometer or blood pressure monitor & earn points every time you track!

Shop devices

Quit Smoking and Tobacco

Earn 250 points for setting a quit goal, then 250 more when you achieve it.

Learn more
Digitising Human Experiences at L’Oréal

Augmented Reality

Beauty experiences are changing, allowing for a more personalised experience with Augmented Reality. Using AR, customers can “apply” makeup to their own face digitally, experiment with different looks and purchase the look that works best for them.

Live Streaming

L’Oréal is rolling out a digital beauty assistant who helps customers test products on their face. Using augmented reality and livestreaming technologies, L’Oréal is digitising its relationship with consumers by bringing the personalised make-up counter experience to the home.
Chatbots at Danone

Volvic Water Star Wars Chatbot & Evian City Guide Chatbot

Volvic natural mineral water joined forces with one of the most anticipated films: Star Wars: The Last Jedi.

To mark the occasion, the brand portrayed Star Wars characters on its bottles and offered an experience to consumers, so that they could discover what hero of the saga they most look like.

Each bottle featured a Facebook Messenger code which, once scanned, introduced the consumer to an “Awaken Your Strength” Chatbot.

Evian used a similar activation which allowed consumers to interact with a chatbot that provided city guide recommendations.
Spoon Guru: Artificial Intelligence-based Food Search and Discovery

Spoon Guru’s search technology takes the fuss out of finding the right food, by matching products and recipes to consumers’ unique food preferences. It also helps retailers redefine their product offerings, thereby increasing the availability of foods for customers.

Using proprietary AI technology, Spoon Guru is designed to ensure accurate, relevant food choices, tailored to the needs of the individual, whatever the dietary preference.

In a world of complex consumer preferences, Spoon Guru finds healthy foods for everybody.
Yuka - Keeping Consumers Informed About the Food They Eat

Yuka is a food app that lets you scan products (like Spoon Guru) and gives the product you scanned a grade from 1 (worst) to 100 (best). The grade falls into 1 of the 4 categories:

- from 100 to 75 is "excellent",
- 75-50 is "good",
- 50-25 is "mediocre" and
- 25-1 is "bad".

Yuka also allows you to see what the qualities of a certain product are (ie low calories/sugar) as well as the negative aspects of the product (ie too much salt or preservatives). The app also sometimes suggests a healthier alternative choice.

Furthermore, Yuka users can track their eating habits in a chart and learn more about the foods they are eating. The app saves all the products scanned by the user in a list that the user can scroll through. As of June 2018, Yuka has been downloaded over 4.5 million times.
Digital has unlocked exponential opportunities to deliver a connected health strategy enabling manufacturers, retailers and health care to deliver a coordinated consumer experience focussed on improving the health and wellbeing of the nation. Foodmaestro provides the foundational data and services to support this strategy partnered with industry leaders such as Nielsen Brandbank, Deloitte, Coeliac UK, King’s College London & Guy’s & ST Thomas’ NHS Trust and enabling leading retailers including Sainsbury’s & ASDA. With a data pool ranging from Europe, UK and North America, Foodmaestro has the depth and reach to have a global impact and lead the change in driving to healthier products.

A look inside British Soft Drinks

Having a large variety of product offerings seems ideal, however many consumers experience “choice overload” and don’t end up with the products that they want or need.

There is also still no clear and consistent signposting of product health impact and effects.

Red Bull still comes under the online category of “Sports, Energy & Health Drinks” for most retailers creating an association between these high sugar and caffeine drinks to health.

Foodmaestro brings transparency to these products enabling consumers to make informed decisions.

Foodmaestro equips retailers and manufacturers with the data and platform required to address these challenges with a data pool ranging across Europe, UK & North America. Empowering tens of thousands of consumers with medical conditions through mobile to manage their complex dietary needs whilst enabling major retailers to aid their consumers in a personalised shopping experience. Foodmaestro is proudly the only platform on the market endorsed and used by clinical and leading industry bodies including various NHS trusts.

Foodmaestro aids are recommended by Dietitians and Doctors across various NHS trusts. In addition Foodmaestro powers the Coeliac UK Gluten Free Food finder as well as Food & Drink Directory.

It has also partnered with ASDA & Sainsbury’s in the UK, who have this year launched personalised dietary aids to help their consumers find the right foods.

Get in touch with Foodmaestro by contacting Julia@foodmaestro.me

www.foodmaestro.me
Our customers want to feel good about our social and environmental impact every day and trust that the products we sell are good for the health of their kids and the planet. They expect us to do the right things and we welcome that. Together we can use the strengths of our business to create shared value for them and the communities we serve.”

Doug McMillon, President & Chief Executive Officer, Walmart and CGF Board Member
Each initiative should seek to be as precise as possible about what it is trying to achieve and for whom. Articulating the goal in a way that clarifies what is in scope and what is out of scope and tying that goal to specific measures of success is the starting point.

As an illustration, moving beyond “we want to help people to eat better” to specifying that “we want to drive down the incidents of adult and childhood obesity in the worst affected parts of the country and for those most at risk” provides real guidance for the behavioural change interventions that will be needed.

It is advisable to then specify the measures of success in two dimensions, dimensions, which provide real direction to the interventions required:

- **Outcome (lag) measures**, such as incidents of adult and childhood obesity as measured by the public health bodies of that country/region
- **Input (lead) measures**, such as average portion size, levels of sugar in the average basket, exercise levels/participation, etc.

Finally, clarifying the target groups and illustrating these through ‘personas’ is also key to our framework. Typically, 3-5 segments will be required to get the right level of reach and diversity within a population. Reach being critical for the scale of impact. Diversity being critical for inclusion. Specifically, a key consideration for diversity in our Digital Framework is one of digital maturity and access. Driving a portfolio of digital interventions that focus on segments of society that have access to multiple devices, shop online, have disposable incomes and time to focus on rational consumption decisions will seek to widen the divide and miss the most at risk parts of our society. Describing the personas with differentiating demographic, socio-economic and attitudinal parameters to illustrate each segment will help provoke the right ideation for digital interventions.

The more data-driven the goal, the better the measures and personas.
**ILLUSTRATIVE EXAMPLE - APPLYING THE DIGITAL FRAMEWORK**

### DEFINE THE GOALS, MEASURES AND TARGET PERSONAS

<table>
<thead>
<tr>
<th><strong>Goal</strong></th>
<th><strong>Measures/KPIs:</strong></th>
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<tbody>
<tr>
<td>Reduce levels of adult and childhood obesity</td>
<td>Basket change to reflect healthier choices via increase in healthy basket index scores in key at risk groups. Increase in engagement on healthy lifestyle choices (e.g. participation in community ‘park-run’ events; participation in community events/education programmes)</td>
</tr>
</tbody>
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#### TARGET PERSONAS

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Segment</th>
<th>Interests</th>
<th>Goal</th>
<th>Segment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Julia</td>
<td>Early 30s. Digitally savvy. Young mum with two kids, 3 and 1 years of age. Cash poor/time poor.</td>
<td>Belongs to segment A (29%), micro-segment: time compressed mum. Interests in reading, cinema and fashion.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peter</td>
<td>Early 40s. Digitally aware but not fluent. Two teenage children, for who he does the weekly shop. Cash poor/time rich.</td>
<td>Belongs to segment C (15%), micro-segment: professional. Interests in local football team, real ale and computing.</td>
<td></td>
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</tr>
</tbody>
</table>

To achieve reach and diversity... 
... 3-5 personas typically required

*Our illustration shows a high-level example of what we mean.*
We have provided one-page overviews of potential Digital Enablers which could be deployed to support an initiative's goals. Each overview provides a description of the enabler, some pointers to its behavioural change potential, two pioneering examples of where it is being used, some key considerations for its use and an indicator on the relative ease of implementing them. We have sought to strike the right balance between being instructive, without being prescriptive, as this resource will need to help those teams focussing on goals as diverse as driving down adult/childhood obesity, supporting people as they age, providing greater access to medical care, improving hygiene standards, and many more.

The intent of these overviews is to stimulate thinking about what could be useful, and so are provided as cards that can be grouped into enablers of potentially high, medium and low impact for a given goal.

Understanding what interventions can best drive behaviour requires us to put ourselves in the shoes of the people we are seeking to empower and support. We do this through mapping future journeys. These journeys should be end-to-end in nature, looking at triggers across the stages of Awareness, Research/Consideration, Action (e.g. Purchase) and Support.

Through a focus on our goal and measures, taking our high-impact potential digital enablers and orienting our journeys around each persona we can develop an illustrative journey that embeds digital in driving the behaviour we seek.

Again, a high-level illustration is provided for our personas and shows where each of the digital enablers can be designed to play a role.
Julia sees an entry on her Facebook feed about a new meal planning app launched by her local supermarket and recommended by one of her friends.

Julia personalises the meal plans and can see the best value option to get delivered. Healthy swap suggestions are made and relevant promotions make her feel good about the experience. She receives helpful alerts via the app on new recipes, promotions and product information tailored to her needs.

When she goes to her local store the information/advice available feels as good as it does online.

Julia can easily track the healthiness of her children’s diet via the app.

She is delighted to receive a small reward to use on healthy experiences for herself.

ILLUSTRATIVE EXAMPLE - APPLYING THE DIGITAL FRAMEWORK

DEVELOP FUTURE JOURNEY(S) FOR EACH PERSONA

SELECTING DIGITAL ENABLERS

Julia contacts her friend to understand more and shares the post with others. She downloads the app and enters her details, using filters, in-app questionnaires and chatbot advisor to help build her preferences. She gains confidence from the NHS approved Healthy Basket Index and the R&Rs available through the app. Integration with her ecommerce basket is seamless.

Julia personalises the meal plans and can see the best value option to get delivered. Healthy swap suggestions are made and relevant promotions make her feel good about the experience. She receives helpful alerts via the app on new recipes, promotions and product information tailored to her needs.

When she goes to her local store the information/advice available feels as good as it does online.

Julia can easily track the healthiness of her children’s diet via the app.

She is delighted to receive a small reward to use on healthy experiences for herself.
Now is the time for us to empower our customers, employees and communities to thrive. Together, we can improve the health of the entire world starting right here in your neighbourhood”.

Frans Muller,
President and Chief Executive Officer,
Ahold Delhaize and Health & Wellness Pillar Board Co-Sponsor
One of the ambitions of The Consumer Goods Forum is to empower people to lead healthier lives. The Health & Wellness Pillar helps us to achieve this by offering an open platform for collaboration and best practice. I invite all companies, small and large, to join us in this collective effort. Every contribution counts”.

Mark Schneider,
Chief Executive Officer,
Nestlé and Health & Wellness Pillar Board Co-Sponsor
Map the Enablers to the Digital Health & Wellness Compass to ensure there is a good balance across the drivers of behavioural change.

A compass is used to aid direction. Our Digital Compass is no exception. By mapping the portfolio of interventions developed in step 4 we can gain direction in two ways.

First, are we hitting the right dimensions (Capability, Motivation, Opportunity) of the behaviour change system and could we be striking a greater balance?

A portfolio that only impacts the Opportunity dimensions may not achieve the degree of impact we aspire to.

Second, are we maximising the potential of digital? The rings of our compass are categorised into:

- Providing Information / Advice to raise awareness and empower consumers and shoppers to make more informed decisions
- Delivering Engagement / Services to enable consumers and shoppers to take action, for example through tools/prompts/engaging content/etc.
- Building Community / Environment support to influence consumers and shoppers through education, role modelling, social activities and sharing

Again, being prompted to achieve the right balance across these dimensions is part of the directional aid of our Digital Compass.
The compass segments help us visualise this.
The illustration demonstrates the strong balance that we aimed to achieve in our high-level example.

Segment the enablers to show where collaboration required

- Digital Enabler For Individual Pioneer Action
- Digital Enabler Requiring Collaboration

ILLUSTRATIVE EXAMPLE - APPLYING THE DIGITAL FRAMEWORK

MAP THE ENABLERS TO THE DIGITAL H&W COMPASS

- Reduce levels of adult and childhood obesity
- Increase in engagement on healthy lifestyle choices
- Basket change to reflect healthier choices

- Social influence: Campaign
- Social Campaigns/ Web Content
- CRM/Mobile alerts: Healthy recommendations
- AI/Machine learning: recommendations
- Smart cameras used to optimize store layouts for healthy shopping
- eCommerce (and click & collect)
- Smart packaging: ingredients and health info
- Healthy Basket Index on Receipt
- Healthy Basket Index On-line
- Voice Assistants
- Meal Planning App
- Chatbot
- Loyalty: Healthy purchase reward
- Mobile App
- Mobile self scan: healthy swap suggestions
- Kiosk/colleague tablets
- CRM: Community reward for healthy choices

The digital enablers are mapped to the digital H&W compass to illustrate how they can support health and wellness initiatives.
Conclusion

The final step of our framework is to categorise the digital interventions that have been selected for action. The two categories being:

• Collaboration Interventions: These require more than one entity to drive a successful outcome. The collaboration could range from aligning individual marketing / communications / promotional activity to amplify impact; to agreeing on standards and definitions as an industry (e.g. one measure of a healthier basket, endorsed by local health bodies); to launching co-creation projects such as a common resource for information/advice.

• Pioneer Interventions: These can be implemented by an individual organisation. They are therefore recommended to CGF members and participants in the Health & Wellness initiative for delivery according to the individual strategies of each organisation. An example might be (re) developing loyalty programmes that include elements of health and wellbeing.

It is recommended to spend time considering both the enablers and barriers to success when undertaking the collaboration interventions.

Through this, relevant activities/workstreams can be launched.
APPENDIX

Global Health and Wellness
Digital Enablers
<table>
<thead>
<tr>
<th>Digital Enabler</th>
<th>Brief Description</th>
<th>Ease to Implement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytics, AI, Machine Learning</td>
<td>Gathering data at every touchpoint across the consumer/shopper journey and leveraging the right analytical techniques to deliver actionable insights to the business at the point of decision making is becoming a key driver of commercial success within retail. The opportunity is to optimise key commercial levers, optimise consumer/shopper engagement and drive personalisation. This requires enhanced capabilities around data gathering/ingestion, data processing, insight development and data-driven decision making. Technology innovation is a major driver of these enhanced capabilities, especially in the areas of data management, Artificial Intelligence and Machine Learning.</td>
<td>Medium</td>
</tr>
<tr>
<td>Biometric Readers</td>
<td>Biometrics offer many ways to capture / use data from users of connected devices. Increasingly devices such as mobile phones, smart watches and even shoes are being fitted with connected biometric readers, such as hear rate monitors, iris scanners and vein readers to provide new forms of identification and new ways user lifestyles with brands.</td>
<td>Medium</td>
</tr>
<tr>
<td>Blockchain</td>
<td>&quot;Retailers are slowly getting to grips the potential value of blockchain – which is a family of distributed ledger technologies based on the technology that underpins cryptocurrency”</td>
<td>Easy</td>
</tr>
<tr>
<td>Chatbots</td>
<td>A chatbot is a computer program which allows organisations to provide a service, powered by rules and artificial intelligence, that can be interacted with through a ‘chat’ interface. Chatbots provide a more human-like dialogue between the consumer and the service, which is often a more natural way for consumers to collect and process data.</td>
<td>Medium</td>
</tr>
<tr>
<td>Clienteling</td>
<td>Clienteling is a technique used by retail bricks and mortar to use digital tablets or phones to help guide the interaction with them and the customer based on the customers history with them. It is intended to add a personal touch so the conversation and engagement can be contextualised. For example by knowing what the customer likes, brand preferences, the retail assistant can ensure the conversation remains relevant.</td>
<td>Medium</td>
</tr>
<tr>
<td>Conversational Commerce</td>
<td>The application and maturity of Artificial Intelligence and Machine Learning has developed exponentially over recent years across a number of sectors, with the use of AI chat bots being commonplace to not only help with simple queries but to purchase products.</td>
<td>Medium</td>
</tr>
<tr>
<td>CRM / Personalisation</td>
<td>Customer Relationship Management (CRM) is an approach to capturing and using the information about individual consumers or businesses in order to foster meaningful relationships with them. A CRM system helps organisations to store, organise and managing the data relating to consumer interactions with the organisation.</td>
<td>Medium</td>
</tr>
<tr>
<td>e-Commerce</td>
<td>Healthcare was seen as a last frontier when it came to online shopping or e-Commerce, but Shoppers/Custumers are leaving their initial reservations behind and it now feels completely natural to buy H&amp;W products online, whether it be monthly does of vitamins, supplements, periodic blood work or looking for competitive healthcare offers on line.</td>
<td>Medium</td>
</tr>
<tr>
<td>Gamification</td>
<td>Gamification is the process of applying game mechanics to something which exists (e.g. a website, an app, a proposition) in order to encourage or change a particular behaviour. Game mechanics include points and badges, levels of increasing difficulty, tasks and missions, leader boards and ‘unlockable’ features. Gamification is primarily used to motivate participation, engagement and loyalty and can often result in increased competition, collaboration and community.</td>
<td>Medium</td>
</tr>
<tr>
<td>Geofencing/ iBeacons</td>
<td>Geofence: A 'geofence' is a virtual boundary around a physical geographical location (defined by GPS) than enables software (typically a mobile device) to trigger a response or message when that device enters, leaves or remains in that particular area. Beacons: Beacons are Bluetooth-powered devices which use low-energy proximity sensing technology to trigger a response or message in a similar way to geofences, although often on a much more restricted distance (i.e. a few feet or metres).</td>
<td>Easy</td>
</tr>
<tr>
<td>Image Recognition</td>
<td>Image recognition is the ability to use a device such as a mobile phone or a camera to scan an object, scene or person to capture data either for processing or to trigger a response. Image recognition can be used with simple triggers (i.e. open a webpage upon successful scan) or can be used with other technologies (e.g. augmented reality) for more immersive experiences.</td>
<td>Medium</td>
</tr>
<tr>
<td>IoT (Wearables, Bluetooth)</td>
<td>The ‘Internet of Things’ describes a network of physical devices, vehicles, home appliances and essentially any item which has software and sensors embedded within them allowing them to connect to the internet and exchange data. Two of the most common IoT devices are ‘wearable’ technologies and ‘smart home’ devices. Many IoT devices use voice recognition to receive commands, using digital displays to provide feedback and responses to commands.</td>
<td>Medium</td>
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<tr>
<td>Kiosks</td>
<td>Healthcare kiosk covers digital health and wellness information. More patients are turning to a self-service approach when it comes to healthcare. In store digital kiosks that can provide information, access to clubs/accounts and in some cases commerce capability.</td>
<td>Easy</td>
</tr>
<tr>
<td>Digital Enabler</td>
<td>Brief Description</td>
<td>Ease to Implement</td>
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<tr>
<td><strong>Loyalty</strong></td>
<td>Many of today’s loyalty programs attempt to buy consumer loyalty through monetary rewards. The consumer might receive discounts or vouchers and, in return, organisations expect them to spend more or give up their data. However, consumers are looking for the benefits that come with a loyal relationship: the consistency, the safety and the comfort of knowing that a person or an organisation has their back. Loyalty relies on both rational drivers (such as location, time sensitivity, price and offer) and emotional drivers (such as respect, reciprocity, recognition and reward)</td>
<td>Hard</td>
</tr>
<tr>
<td><strong>Mobile apps</strong></td>
<td>Smartphones are becoming ubiquitous and customers today have more than one in their households. The surge in smartphone use has spawned a massive market for mobile apps that include games, maps and tools. A growing number of health and wellness apps aim to empower smartphone users to change their behaviours and to manage their own health conditions.</td>
<td>Medium</td>
</tr>
<tr>
<td><strong>Mobile Self Scan</strong></td>
<td>Mobile self-scanning, sometimes also referred to as personal shopping or personal scanning, is the ability to let consumers scan their items before they put them into their shopping basket. One of the great benefits of mobile self-scanning for consumers is that they can interact with products, receive real-time information about products, ingredients, shelf locations, prices, promotions and recommendations while they are shopping.</td>
<td>Medium</td>
</tr>
<tr>
<td><strong>Peer-to-peer Ratings &amp; Reviews</strong></td>
<td>Peer to peer ratings and Reviews (a form of UGC, user generated content) where consumers voluntarily rate a product or service. Peer reviews have been proven to be a strong influencer of behaviours. One survey found that over 85% of visitors actions were influenced by reviews. These have become a mainstay of retail and increasingly a key part in disrupting other sectors, such as hospitality (AirBnB ratings) and transport (Uber ratings).</td>
<td>Easy</td>
</tr>
<tr>
<td><strong>RFID</strong></td>
<td>&quot;Consumer Goods and Retailer organisations increasingly face the need to improve productivity due to rise in living wage and margin pressure due to flat sales. Improved productivity in organisations is requiring them to re-think how they can drive more efficiencies from their employees at warehouses and during manufacturing. This requires clear visibility of stock within the supply chain and the ability to orchestrate it easily through the manufacturing and picking processes. Whilst RFID is an enabling technology, the stock visibility it provides can enable more focused operations, provide clear visibility into shrink, evaluate employee and asset movement, and in more recent times, provide a real-time link into what is happening to tracked items within the organisation.&quot;</td>
<td>Medium</td>
</tr>
<tr>
<td><strong>Search</strong></td>
<td>Healthcare consumers today are seeking personalised and proactive care, and searching for this online is a rudimentary choice. Search, both paid (SEM-Search engine marketing and PPC-Pay-per-click) and unpaid (SEO-Search engine optimisation) should be an integral part of any digital strategy. It puts the product, service or information in front of the consumer at the moment they are seeking to purchase or, in the case of information, consume the content.</td>
<td>Medium</td>
</tr>
<tr>
<td><strong>Smart Cameras</strong></td>
<td>Smart Cameras combine a camera with image processing and machine vision programs all in one package. They are commonly used in life science applications where there are space constraints or no room to mount a separate controller such as high end digital microscopes for off-line cell inspection, barcode reading for packaging and pharmacological products. Smart Camera monitoring will make it possible to catch patients whose condition is deteriorating before their symptoms are obvious. Smart Cameras are able to keep tabs on patients in their vicinity and inform clinicians which patients to monitor. The biggest advantage of camera monitoring may come after patients are discharged. Wiring cameras are able to keep tabs on patients in their vicinity and inform clinicians which patients to keep track of their health is impractical once they’ve left hospital.</td>
<td>Medium</td>
</tr>
<tr>
<td><strong>SmartLabels/ Packaging (QR, NFC, visual recognition, …)</strong></td>
<td>Smart Labels are thin transponders configured under a traditional label which is print-coded. The common enhancements in Smart Labels tags are specially configured RFID tags, QR codes, and Electronic Article Surveillance tags. Smart Labels enables consumers to get additional details about a wide range of food, beverage, pet care, household and personal care products – they can be on the product, the shelf or on packaging. Smart labels are also beneficial for brands to track products and inform supply chain and distribution.</td>
<td>Medium</td>
</tr>
<tr>
<td><strong>Social campaigns / Social Influencers</strong></td>
<td>Social Media campaigns can be relatively easy to implement and low cost as they leverage the community, relying on the experience and advocacy of followers. 27% of customers use social media to research products prior to purchase and therefore value the opinions of their peers. Social media is a great tool for listening and responding to your customers/consumers, is a great way to allow them to register/identify on your channels and also now evolving into commerce capability to allow them to show your products from social platforms such as Instagram.</td>
<td>Easy</td>
</tr>
<tr>
<td><strong>Virtual Reality / Augmented Reality</strong></td>
<td>As the cost reduces and access to VR/AR enabled device increases, we will start to see a major new channel developing to engage all manner of users from colleagues to patients to consumers. Both AR and VR will enable immersive experiences to be created to engage, educate and entertain users. AR in particular has the potential to help_layer onto peoples surroundings new insights, information and experiences to also improve productivity and enhance existing physical products, services or experiences.</td>
<td>Medium</td>
</tr>
<tr>
<td><strong>Voice Assistants</strong></td>
<td>The use of Voice Assistants has grown rapidly over recent years, with Amazon’s Alexa, Google Home and Siri becoming increasingly popular with consumers in their everyday lives. Consumers are using them to support them in various aspects of their lives, whether it’s to search for information, play music or to purchase a product or service. Voice Assistants are shortening the traditional path to purchase and the increasing number of connected devices in our homes are merging the points of engagement and transaction.</td>
<td>Medium</td>
</tr>
</tbody>
</table>
DIGITAL ENABLER OVERVIEW - Analytics, Robotics/Machine Learning and AI

**OVERVIEW**

- Gathering data at every touchpoint across the consumer/shopper journey and leveraging the right analytical techniques to deliver actionable insights to the business at the point of decision making is becoming a key driver of commercial success within retail. The opportunity is to optimise key commercial levers, optimise consumer/shopper engagement and drive personalisation. This requires enhanced capabilities around data gathering/ingestion, data processing, insight development and data-driven decision making. Technology innovation is a major driver of these enhanced capabilities, especially in the areas of data management, Artificial Intelligence and Machine Learning.

**BEHAVIOURAL CHANGE OUTCOME**

**Enabling commercial optimisation**
- Bringing together different data sources (e.g. sales data, behavioural data) with analytics models can drive optimisation across the commercial levers of range, product, space, merchandising, price and promotion, as well as the marketing levers of content, communications, engagement and channels.

**Enabling personalisation**
- Analytics models can drive insights into the needs and preferences of individuals and thereby enable personalised content, recommendations and offers. Increased relevance across these dimensions can be a major driver of behavioural change.

**PIONEER EXAMPLES**

**Wellinlytics (Corporate Wellness)**
- Real time reporting and data aggregation technology identifies employee population who are most at risk for catastrophic claims, characterises their specific chronic issues, and using a predictive analytics engine, determines the risk potential. Then clinical coaching teams address the high risk population within the company with targeted solutions concerning diet, exercise, and intervention solutions.

**Electronic Health Records (EHRs)**
- Patients have their own digital record which includes demographics, medical history, allergies, laboratory test results etc. Records are shared via secure information systems and are available for healthcare providers and can be modified over time without duplication. EHRs can also trigger warnings and reminders when a patient should get a new lab test or track prescriptions to see if a patient has been following doctors’ orders.

**CONSIDERATIONS**

**Seek to stay in 'the corridor of balance'**
- The starting point for many organisations is characterized by a lack of data/insights capability and either a shortage of critical data or an inability to manage the sea of data available. It is important to get the balance right between driving incremental business value (through an agile based, outcome focused approach) and delivering the scalable capability that will ultimately be demanded. Too much focus on one dimensions can lead to failure.

**Recognise and address the scale of change required**
- Getting the right data and deriving great insights through sophisticated analytical methods is not enough. Taking decisions based on the right insights requires a cultural change and enhanced capabilities across the organization.
## Biometric Readers

### Overview
- Biometrics offer many ways to capture / use data from users of connected devices. Increasingly devices such as mobile phones, smart watches and even shoes are being fitted with connected biometric readers, such as hear rate monitors, iris scanners and vein readers to provide new forms of identification and new ways user lifestyles with brands.
- A biometric screening, sometimes called a biometric health screening or biometric assessment, provides a clinical assessment of key health measures. These results may be used to identify certain health conditions, such as diabetes and heart disease, or to indicate an increased risk for these conditions.
- To optimize the investment in biometric screenings, wellness programs could use robust technology that allows targets to be set, reasonable alternatives to be managed, and results to be reported in real time.

### Behavioural Change Outcome
- **Heightened awareness**
  - Insights from biometrics can be used to raise awareness in users of potential issues or opportunities. For example, devices tracking customer temperature could advise when spikes are recorded to prompt user to act.

- **Increased Engagement through Gamification**
  - Setting targets that users can work towards and receive regular progress feedback on / compare with peer groups, can help motivate positive behaviour change – e.g. heart rate recovery after exercise or improving restful sleep patterns.

- **Increased identification**
  - Creating convenient, more secure and friction free way of consumers/users to identify themselves through facial recognition, iris recognition, vein recognition etc could help drive them to identify more proactively, access secure records like health records and helping unlock additional insight for brands/organisations.

### Pioneer Examples
- **Google Connected contact lens**
  - The prototype consists of a non-invasive sensors embedded within contact lenses for biocompatibility. A wireless antenna for a smart contact lens designed to monitor glucose levels in the wearer’s tears, thinner than a human hair, acts as a controller to communicate information to the wireless device and the data is sent to external device.

- **Barclays Iportal (Biometric recognition)**
  - The UK’s Barclays bank has launched a new corporate online banking tool that relies on biometric authentication. Called IPortal, the system uses Hitachi Digital Security Vein ID scanner as a PIN and password replacement, providing increased security and convenience.

### Considerations
- Significant demographics will be uncomfortable with providing their biometric data to companies to use, though with the increasing proliferation of devices with these capabilities (iPhone X, Samsung Galaxy S8/S9), this will likely change fast.

- Could lead to significant increase to personally identifiable data exposure.

- A big challenge for health and wellness programmes is collecting data from all the different screening sources, verifying eligibility, consolidating results, managing exceptions, and providing timely feedback to participants. In many cases employers and wellness vendors underestimate the complexity of using screening data for results-based incentive programs.

### Ease to Implement

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<tr>
<th>Hard</th>
<th>Medium</th>
<th>Easy</th>
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**DIGITAL ENABLER OVERVIEW - Blockchain**

**OVERVIEW**
- Retailers are slowly getting to grips with the potential value of blockchain – which is a family of distributed ledger technologies based on the technology that underpins cryptocurrency. The drive and interest has primarily been driven by the ability of the technology to allow for step-changes in how information is processed and trust is created between parties.
- Blockchain capabilities have applicability across the end-to-end value chain with retailers, consumer goods companies, logistics providers, and suppliers collaborating.
- Demonstrated use cases are in Finance, Customer Value, Information Efficiency, Audit & Transparency, and Smart Contracting.
- Retailers and CP companies are currently in the early stages of maturity focusing on Pilots and POCs which will soon move to deployments over the next year or two.

<table>
<thead>
<tr>
<th>BEHAVIOURAL CHANGE OUTCOME</th>
<th>PIONEER EXAMPLES</th>
<th>CONSIDERATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>end to end transparency of product provenance</strong></td>
<td><strong>Carrefour</strong></td>
<td><strong>It is still early days with the technology and standards still emerging</strong></td>
</tr>
</tbody>
</table>
- Brands can track sustainability and quality through end-to-end product traceability
- They can surface this information and provide clear transparency to the consumer as a differentiator
- They can issue recalls / withdrawals at greater speed and thereby at lower risk to consumers

| **Levelling the partner playing field** | **Maersk** | |
- A big challenge for large companies is the ability to ensure consistency of data across a variety of partners (size, maturity, geographies). Blockchain can lower the investment threshold for partners
- Usage of smart contracts can transform how payments terms and structured and executed which can translate to lower purchase-to-pay lead times and lower overall costs in the value chain

**Carrefour**
- Outcomes delivered:
  - The French retailer, Carrefour, already uses blockchain for its free-range Carrefour Quality Line Auvergne chickens. They will roll it out to eight more animal and vegetable product lines. Each product’s label will feature a QR Code which consumers will be able to scan to provide them with information about the product and the journey it has taken.

**Maersk**
- Outcomes delivered:
  - Maersk have combined with IBM to form a joint venture to provide “more efficient and secure methods” for global trade using blockchain technology on the back of a trial in 2016. It intends to help shippers, ports, customs offices, banks, and other stakeholders in global supply chains track freight as well as replace related paperwork with tamper-resistant digital records.
Chatbots are still computer programs which allow organisations to provide a service, powered by rules and Artificial Intelligence, that can be interacted with through a ‘chat’ interface. Chatbots provide a more human-like dialogue between the consumer and the service, which is often a more natural way for consumers to collect and process data.

For example, a chatbot could help consumers with simple questions such as "How many calories are in a Granny Smith apple?", or "Where is my closest health foods store?"

Chatbots can help boost engagement between consumers and organisations, by improving the way consumers interact with the organisations. Two-way conversational interactions are more natural and engaging than a one-way information feed.

Chatbots can also be used to help consumers access account information without the need to find the relevant screen on their user account. For example, asking a chatbot "What's my Green Points Balance?" could quickly return the loyalty points for a particular organisation.

Chatbots can be educated over time, by looking at the types of questions and the language used by consumers so that they are 'sharper' and run more effectively – either by manual intervention, or through Artificial Intelligence and Machine Learning techniques.

**BEHAVIOURAL CHANGE OUTCOME**

- **Consumer self-serve**
  - Customers can feel empowered to use chatbots to find answers to questions they have, in their own time and at their own pace, using a more human-like dialogue is more user-friendly for many consumers, as opposed to searching a long website full of FAQs.

- **Faster access to data**
  - Customers can feel empowered to use chatbots to find answers to questions they have, in their own time and at their own pace. Using a more human-like dialogue is more user-friendly for many consumers, as opposed to searching a long website full of FAQs.

- **Higher engagement with organisations**
  - Chatbots can help boost engagement between consumers and organisations, by improving the way consumers interact with the organisations. Two-way conversational interactions are more natural and engaging than a one-way information feed.

**PIONEER EXAMPLES**

**Your.MD**
Outcomes delivered:
- Helps consumers to understand symptoms and consider them as clear signs from the body, hoping that the user is persuaded to talk to a real-life doctor.
- Provides fast access to data.

**Atlas Fitness**
Outcomes delivered:
- Supports users in keeping to their exercise goals and regimes, by sending personalised workout reminders on a schedule provided by the user, along with motivational quotes.
- Provides answers to fitness questions.

**CONSIDERATIONS**

**Stickiness can be a challenge**
- Continued engagement can be a challenge over the long term.

**No chatbot is perfect**
- Chatbots are still computer programs, and whilst some will contain elements of Artificial Intelligence to develop itself over time, it can only be as useful as it is programmed to be.

**Chatbots can be taught incorrectly**
- Chatbots that use Artificial Intelligence may be at higher risk of learning "bad" behaviours from users, such as bad language. Processes for manual intervention should be in place to catch and remedy these as quickly as possible.
**OVERVIEW**

- Clienteling is a technique used by retail bricks and mortar to use digital tablets or phones to help guide the interaction with them and the customer based on the customer's history with them.
- It is intended to add a personal touch so the conversation and engagement can be contextualised. For example by knowing what the customer likes, brand preferences etc the retail assistant can ensure the conversation remains relevant.
- Clienteling is a great tool to digitise the in-store experience and works especially well where the information is sent into a CRM system to track the full 360 view of the customer between online and offline. Clienteling can also provide a full catalogue of products which would not be available in every store opening up further sales opportunities.

**BEHAVIOURAL CHANGE OUTCOME**

- **Enriching Personalised Interactions**
  - Employees can build richer relationships with customers and this tool is proven to increase conversion and engagement rates.

- **Becoming Brand Evangelists**
  - Customers will feel more valued and appreciate the personal touch in meeting their need. As customers become familiar with a brand, it becomes easier to gain and maintain their interest, and one of the ways to do that is through superior customer service. Thus brands can focus on retaining high-value repeat customers who cost less and buy more.

**PIONEER EXAMPLES**

- **Mothercare**
  - Great use in stores of the first to adopt to help customers with maternal and baby names again using profile and historic data to present relevant brands and products based on lifestyle. They since added payments, CRM integration and are working on AI and VR innovations on the app.

- **Talbots (Concierge)**
  - Talbots uses mobile technology to power a range of intuitive services, such as notifying shoppers when their favourite product is on sale in a store. That feature exists alongside a range of other aids that help sales associates provide better personalization for shoppers.

**CONSIDERATIONS**

- Only effective if fully integrated with CRM and payments, Clienteling can become a poor experience if run as an isolated channel. For example take order on Clienteling app and then make customer queue to pay. Clienteling relies on customer data such as purchase history and personal information, as the end goal is to increase customer lifetime value.
- Clienteling products are primarily purpose is to drive in-store experience and applying this principle more widely can be seen playing a fundamental role in shaping the future of customer experience. While the mission of healthcare brands is much different from what retailers offer, the individual pieces that make up their patient experience are very similar to what retailers look for in when crafting in-store experiences.

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**EASE TO IMPLEMENT**

- Easy

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To fulfil customer orders end to end, a brand’s offer must be increasingly more agile and simpler for consumers, driving frequency and potential switching versus those retailers not providing such a service.

### CONVERSATIONAL COMMERCE

**OVERVIEW**
- The application and maturity of Artificial Intelligence and Machine Learning has developed exponentially over recent years across a number of sectors, with the use of AI chatbots being commonplace to not only help with simple queries but to purchase products.
- As technology has become more sophisticated over time, the use of chatbots and voice bots have become increasingly popular in the retail and consumer goods industry, where ultimate convenience and digital application is demanded.
- AI and machine learning has been coupled with an e-commerce and advanced analytics solution to develop a ‘Conversational Commerce’ offer, to provide tailored experiences for consumers.
- The Conversational Commerce emotionally engages consumers through conversation, and by adapting over time through each interaction, is able to curate bespoke services and solutions, extending relationships across the lifecycle between consumer and brand.

### BEHAVIOURAL CHANGE OUTCOME

<table>
<thead>
<tr>
<th>Frequency of purchase</th>
<th>Consumers to shop anytime, anywhere</th>
<th>Improved relevance and engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase through conversation is quicker and simpler for consumers, driving frequency and potential switching versus those retailers not providing such a service.</td>
<td>Voice technology can be used in and out of the home, encouraging customers to shop whilst on the move.</td>
<td>The insight sought through the multitude of interactions through voice technology provides an opportunity to develop emotional connections and brand intimacy with customers which in turn drives loyalty.</td>
</tr>
</tbody>
</table>

### PIONEER EXAMPLES

**Walmart**
- Outcomes delivered:
  - Walmart partnered with Google to provide highly personalised voice shopping. It recently launched its voice platform to allow consumers to shop more than two million Walmart items through voice.

**Domino’s Pizza**
- Outcomes delivered:
  - As early as 2014, Domino’s Pizza launched voice ordering via its iPhone and Android apps. The in-app voice assistant, Dom, can take users’ order for carryout or delivery, handle saved orders, suggest additions to a meal, and find coupons for the best deals.

### CONSIDERATIONS

**The operational foundations must be linked with AI technology to enable commerce**
- To fulfil customer orders end to end, a brand’s operational foundations must be linked to the front end technology for example, product catalogues, inventory management and payment systems.

**Conversational Commerce needs to be a key part of the overall DCX strategy**
- Organisations must be able to scale up, sustain and mature the Conversational Commerce platform so that it becomes an integral way that customers shop. Governance, organisational structure and talent strategy should also be considered as part of such an initiative.
### OVERVIEW

- Customer Relationship Management (CRM) is an approach to capturing and using the information about individual consumers or businesses in order to foster meaningful relationships with them.
- A CRM system helps organisations to store, organise and managing the data relating to consumer interactions with the organisation.
- Personalisation is a term used to describe activities (often marketing related) which are tailored to an individual, or segment of individuals, in order to be more relevant to them.
- CRM is often used as an enabler to support personalisation, as data can be captured to be used to provide consumers with a better product or service.
- Providing information which is not personalised can often be frustrating for consumers, as it may be irrelevant to them (for example, providing information about elderly health and wellbeing to someone in their 20s). This may result in the consumer becoming disengaged from the brand or organisation.

### BEHAVIOURAL CHANGE OUTCOME

**Increased engagement**
- Consumers who interact with touchpoints (such as a website or email marketing) which have been tailored, and are therefore relevant to them, are more likely to interact with a brand, and have longer-term engagement with that brand.

**Influence decision making**
- Using consumer and transactional data in the right way can enable organisations to influence decisions made by consumers, whether that decision is to buy a particular brand or product, or a particular number of items.

**Word of mouth referrals**
- Consumers trust the people closest to them, whether that's their family or their friends. Often, consumers will talk about great experiences they've had, and will recommend products or services to their friends. CRM and personalisation can help increase the likelihood of word-of-mouth referrals.

### PIONEER EXAMPLES

**Tesco**
- Outcomes delivered:
  - Consumers receive information, marketing and rewards relevant to their recent purchases, rather than advertising irrelevant products, encouraging the customer to continue shopping with Tesco.

**M&S**
- Outcomes delivered:
  - Tailored products, events and news are sent to consumers based on interactions on the website, app and in-store.
  - Consumers select offers relevant to them, which provides M&S with richer data with which they can personalise experiences.

### CONSIDERATIONS

**There should be a reason for collecting particular data**
- It can be tempting for organisations to ask customers for every data point that they could ever possibly need, but if the organisation cannot show why the data is required, they could end up in a lot of trouble. Organisations need to build trust with consumers to show that the data being asked for is important to provide a better product or service, and this trust can be lost if the data is misused.

**CRM is a strategy, not just a system**
- Many organisations think ‘CRM’ is just about an IT system, without considering the strategy they implement. Having data is only useful insofar as there is a strategy with which it can be leveraged.
The use of proprietary platform to sell bundled healthcare procedures to customers is increasingly becoming commonplace. Healthcare companies can meet their customers halfway by being transparent, offering comparative shopping tools or reference links, clearly explaining how and when pricing data is collected and what it includes.

The push for online pharmaceuticals is underway with multibillion dollar ecommerce markets opening up. Very soon, patients around the world will have a genuine alternative to receiving drugs direct from their prescribing doctor and having to wait in line to fill prescriptions at their local pharmacy.

### BEHAVIOURAL CHANGE OUTCOME
- **Improved Transparency**
  - Price Transparency sites to help patients understand costs offering comparative shopping tools or reference links, clearly explaining how and when pricing data is collected and what it includes.

- **Convenience - Easy accessibility and reduced physical barriers**
  - Ease of shopping around for healthcare with clearly explained options and courses of treatment.

- **More choice and Rejection of Protectionism**
  - Large companies must participate to gain valuable new opportunities and favour open access and customer centrity.

### PIONEER EXAMPLES
- **eClinicalWorks**
  - eClinicalWorks, develops information technology to connect doctors, patients and insurance companies to make healthcare more efficient and customer friendly. Its consumer-oriented subsidiary called healow.com (for Health and Online Wellness), allows patients to communicate with doctors online without having to visit the office.

- **CVS Pharmacy Online**
  - With 41 m customers enrolled in the text messaging program, a mobile tool that provides users with medication refill reminders and enables easy prescription refills. The CVS Express program lets customers using the CVS app order items online and pick them up at a nearby CVS store in less than an hour.

### CONSIDERATIONS
- **Meeting the customers where they are**
  - The need to ensure that customers can talk to real people. The need to delve deeply into customer feedback to understand pain points and engage internal teams to address those concerns.

- **Optimise for social and mobile**
  - More and more customers are online and resort their peer groups for recommendations and using multiple devices.

- **Robust end to end Supply chain**
  - Being able to deliver essential temperature control and sensitive products monitoring cost efficiency and sophistication in serving the so-called ‘last mile’ of delivery.
Gamification is the process of applying game mechanics to something which exists (e.g. a website, an app, a proposition) in order to encourage or change a particular behaviour.

- Gamification is primarily used to motivate participation, engagement and loyalty and can often result in increased competition, collaboration and community.
- Gamification can also be used to provide participants with a sense of achievement, as well as the opportunity for an organisation to surprise its participation.
- Gamification isn’t about adding elements to a customer journey, customer experience or proposition but is about taking the best elements of games and applying them to a new context to drive the required outcomes.
- Exploration has been used to help consumers move at their own pace and find new elements that are relevant to them.

**BEHAVIOURAL CHANGE OUTCOME**

<table>
<thead>
<tr>
<th>Competition</th>
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<tbody>
<tr>
<td>• Encourage healthy rivalry to encourage consumers to accomplish more goals more quickly. This can be done using time-based, team and individualised leader boards to show where people rank.</td>
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<table>
<thead>
<tr>
<th>Collaboration</th>
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<tbody>
<tr>
<td>• Connect consumers as one team to accomplish larger tasks, to drive competition, and to encourage knowledge sharing within the group. Create a broader sense of achievement through teamwork.</td>
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<table>
<thead>
<tr>
<th>Community</th>
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<tbody>
<tr>
<td>• Community gives meaning to goals, badges, competitions, and other mechanics. Sharing participant achievements creates energy in the community by making people aware of what others are doing.</td>
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<table>
<thead>
<tr>
<th>Achievement</th>
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<tbody>
<tr>
<td>• An indicator of accomplishment or mastery of a skill is especially meaningful within a community that understands its value. Often used to identify skills and expertise within a group.</td>
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**PIONEER EXAMPLES**

**Apple Watch Activity**

Outcomes delivered:
- Consumers are encouraged to ‘close their rings’ for key activities like movement, exercise and standing. Daily, weekly and monthly goals can be tailored to individual’s circumstances and badges are rewarded for one-off and sustained efforts.

**Samsung Nation**

Outcomes delivered:
- Customers who advocated for key products and contributed valuable content were rewarded for their efforts:
  - 3x more product reviews and comments
  - 4x more customer advocates
  - 6x more ‘buy’ clicks

**CONSIDERATIONS**

It’s important for those involved to understand what Gamification is and what it isn’t

- Gamification isn’t about adding elements to a customer journey, customer experience or proposition but is about taking the best elements of games and applying them to a new context to drive the required outcomes.
- Gamification isn’t new
- Gamification isn’t a new concept, and many organisations have included it in some form in their proposition. Gamification for gamification’s sake won’t be as effective, and the context of the mechanics matters. Transparency is key.

---

EASE TO IMPLEMENT: Easy
There are many barriers to bein

**OVERVIEW**

- **Geofence:** A 'geofence' is a virtual boundary around a physical geographical location (defined by GPS) that enables software (typically a mobile device) to trigger a response or message when that device enters, leaves or remains in that particular area.
- **Beacons:** Beacons are Bluetooth-powered devices which use low-energy proximity sensing technology to trigger a response or message in a similar way to geofences, although often on a much more restricted distance (i.e. a few feet or metres).
- **Example:** A consumer with the necessary device requirements enters a 100m radius around a supermarket (i.e. a geofence), or walks into a particular aisle in a supermarket (i.e. where a beacon exists) and is sent a push notification with information, marketing communications or promotional content.

<table>
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<tr>
<th>BEHAVIOURAL CHANGE OUTCOME</th>
<th>PIONEER EXAMPLES</th>
<th>CONSIDERATIONS</th>
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</thead>
</table>
| Providing relevant information in the right place, at the right time | **Gatwick Airport**<br>Outcomes delivered:  
  - 2000 beacons were installed to offer an indoor navigation and augmented reality wayfinding service. Beacons acted as a fix for navigation at places where GPS was not available, enabling a smoother and less stressful airport experience. | Getting onto the consumer’s phone in the first instance  
  - There are many barriers to being able to send push notifications via a geofence or iBeacon in the first instance. There needs to be an existing app or mobile wallet for the requests to be sent, and consumers have to have either ‘location services’ or ‘Bluetooth’, and ‘notifications’ enabled. |
| Supporting gamification | **Auchan**<br>Outcomes delivered:  
  - The hypermarket makes use of beacons to enable customers to receive notifications for wayfinding and promotions as they move through the store. Consumer attention can be grabbed at the right time to send relevant marketing and promotional content. | Location, location, location  
  - Geofences have to be large enough to capture passers-by, but not so large as to include irrelevant consumers (e.g. cars on a motorway). Beacons have to be placed within the line of sight of consumers’ devices, tend not to perform too well around metal and shouldn’t overlap. |
| Improved convenience | - Check-in and check-out processes can be simplified with beacons (for example, in a doctor’s office), reducing the strain on a reception desk and making life easier for the consumer. | |
**OVERVIEW**

- Image recognition is the ability to use a device such as a mobile phone or a camera to scan an object, scene or person to capture data either for processing or to trigger a response.
- There are different circumstances in which image recognition could be employed:
  - The functionality could be accessed through a personal mobile device via a mobile app provided by an organisation, which the consumer can use at their own convenience (e.g. scanning a product at home to add it to a shopping list)
  - The functionality could be provided in-store (or other relevant sites) which could enhance the overall experience (e.g. scanning a product in-store to see relevant offers)
  - The functionality could be used by an organisation without intervention from the customer, such as facial recognition cameras behind smart mirrors or displays.
- Image recognition can be used with simple triggers (i.e. open a webpage upon successful scan) or can be used with other technologies (e.g. augmented reality) for more immersive experiences.

## Digital Enabler Overview - Image Recognition

<table>
<thead>
<tr>
<th>Gaining Inspiration</th>
<th>Amazon Go</th>
<th>Snapchat</th>
<th>CONSIDERATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Outcomes delivered:</td>
<td>Outcomes delivered:</td>
<td>Regulations</td>
</tr>
<tr>
<td></td>
<td>• In their pilot ‘Amazon Go’ store in Seattle, USA, Amazon use Image recognition to track and understand more about the consumers who shop there, and the products which they stop to look at, pick up to find out more, put back on the shelf, or put in their bag to buy.</td>
<td>• Snapchat’s lenses use a combination of Image Recognition and Augmented Reality to offer users with a fun and engaging way or using the app, with many brands creating custom lenses to capture consumer attention and market to customers in a new and innovative way.</td>
<td>• Depending on the jurisdiction, the collection and processing of facial imagery may be prohibited or governed in such a way that may be restrictive.</td>
</tr>
</tbody>
</table>

| Improved convenience |  |  | Consumer privacy |
|----------------------|  |  | • Even in cases where the collection and processing of facial imagery is allowed by law, there are ethical questions regarding consumer privacy and transparency about the use of that data. |
| Providing consumers with additional information, or new and engaging content in a way which removes barriers and effort on their part can improve the customer experience, overall engagement levels and can help to encourage positive behaviours and outcomes. |  |  | Machine Learning is recommended |
|  |  |  | • Image recognition technology requires constant input and education to learn and adapt appropriately, which is best done through machine learning and artificial intelligence |
**OVERVIEW**

- The "Internet of Things" describes a network of physical devices, vehicles, home appliances and essentially any item which has software and sensors embedded within them allowing them to connect to the internet and exchange data.
- Two of the most common IoT devices are 'wearable' technologies and 'smart home' devices:
  - Wearable technology is a term generally used to describe smart watches and wristbands which track movement and myriad other health attributes, whilst offering other internet-enabled features such as music streaming, messaging and navigation.
  - 'Smart home' devices include lighting, heating, media systems, security systems and even white-goods such as refrigerators, which aim to simplify and automate many at-home processes that are both user and environmentally friendly.
- Many IoT devices use voice recognition to receive commands, using digital displays to provide feedback and responses to commands.

**BEHAVIOURAL CHANGE OUTCOME**

- Informed consumers make better and healthier
  - Consumers are becoming increasingly more savvy about the data they can generate through IoT devices such as wearables, whether it be monitoring how active they are during the day, their resting heart rate, or their caloric intake throughout their meals. This new, enriched data can help consumers to make better, healthier choices as they go about their daily lives.

- Healthier lives leading to better rewards
  - In some cases, organisations are combining IoT devices and gamification to encourage consumers to live healthier lives. Insurance premiums may be cheaper for consumers who live healthier lives, encouraging customers to eat more healthily and be more active – a win/win for both consumer and insurer.

- Seamless experience
  - Many IoT Devices are simply there to make life a bit easier, and to put consumers’ minds at ease.

**PIONEER EXAMPLES**

- **Nest Labs (Google-owned)**
  - Outcomes delivered:
    - Consumers have greater control over their home safety and security through internet-connected thermostats, smoke detectors and security cameras, and can be alerted at any time via their mobile device if there is any alarming activity such as a fire or a burglary.

- **Amazon Echo**
  - Outcomes delivered:
    - The first widely-adopted 'home hub', Amazon’s Echo devices put the Internet of Things at the front and centre of consumers’ homes, acting as a gateway to control other IoT devices, simplify processes and act as a catalyst for data exchange between devices.

**CONSIDERATIONS**

- **Consumer privacy**
  - Many IoT devices contain microphones and cameras, listening to and watching consumers in their homes, capturing and processing commands and movements in order to respond appropriately. How this data, imagery and audio is managed by the provider is important in maintaining consumer trust with the organisation. Many consumers are just not comfortable with this level of ‘intrusion’.

- **Purpose and outcomes are required**
  - Connecting a device to the internet simply because you can isn’t the best approach. Toasters which alert the user as and when their toast is ready aren’t necessarily priorities for most consumers.
**DIGITAL ENABLER OVERVIEW - Kiosks**

**OVERVIEW**
- Healthcare kiosk covers digital health and wellness information. More patients are turning to a self-service approach when it comes to healthcare. In store digital kiosks that can provide information, access to clubs/accounts and in some cases commerce capability.
- Kiosks provide a digital in-store touch point and a opportunity to engage with the consumer. Health kiosk can be the question and answer terminal in the pharmacy such as those by GSK that lets customer self-query as to whether they are good candidate for the newest health regime. Patients can checking into hospitals without the help of medical administrators. Similar to portal technology, self-service kiosks can help streamline administrative tasks like hospital registration and payment.

<table>
<thead>
<tr>
<th><strong>BEHAVIOURAL CHANGE OUTCOME</strong></th>
<th><strong>PIONEER EXAMPLES</strong></th>
<th><strong>CONSIDERATIONS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Informed consumers make better and healthier</strong></td>
<td><strong>Boots</strong></td>
<td>- Unlikely to appeal to the most digitally savvy consumers.</td>
</tr>
<tr>
<td>- Make healthy choices by providing access to healthy information or healthy recipes/(inspiration) (education) meal ideas. Encourage consumers to consider aspect of health outside nutrition by providing access to clubs (e.g. stop smoking).</td>
<td></td>
<td>- Consumers may not want to use a kiosk for a sensitive topic (e.g. health issue) and may prefer a face to face intervention, or human voice intervention.</td>
</tr>
<tr>
<td><strong>Increase self-service and Raised Awareness</strong></td>
<td><strong>NHS</strong></td>
<td>- Effectiveness of kiosks for healthcare will depend on the quality of the customers’ data (e.g. health records or previous purchase history) Otherwise the interaction will be transactional.</td>
</tr>
<tr>
<td>- Track their own profile over time. Consumers can track progress, log activity, history and pain events through a kiosk helping them stay motivated to reach goals.</td>
<td></td>
<td>- Slicker and less onerous to record and identify customer/patient information, appropriate identity management features, intuitive and simple interface design, multi-lingual and accessibility support are elementary considerations when designing a digital kiosk.</td>
</tr>
<tr>
<td>- Facilitate conversations between consumers and healthcare professionals.</td>
<td></td>
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</tbody>
</table>
DIGITAL ENABLER OVERVIEW - Loyalty

OVERVIEW
- Loyalty is a strong feeling of support or allegiance to a brand or organisation.
- Many of today’s loyalty programs attempt to buy consumer loyalty through monetary rewards. The consumer might receive discounts or vouchers and, in return, organizations expect them to spend more or give up their data. However, consumers are looking for the benefits that come with a loyal relationship: the consistency, the safety and the comfort of knowing that a portion of an organisation has their back.
- They want emotional ownership in the people they surround themselves with, in products they consume, in the services they rely on and in the experiences that are afforded to them.
- Loyalty is a two-way behaviour, and consumers enjoy giving as much as they receive. Consumers don’t just want to be in a relationship because they receive something arbitrary from it.
- Loyalty relies on both rational drivers (such as location, time sensitivity, price and offer) and emotional drivers (such as respect, reciprocity, recognition and reward).

BEHAVIOURAL CHANGE OUTCOME

**Rewarding good behaviours**
- People like to be acknowledged for making good decisions, so rewarding them every time they make a healthy choice, or take a step towards improving their wellness will help to reaffirm this behaviour, making them more likely to do the same in the future.

**Voting with their feet**
- Businesses and organisations which provide consumers with rewards for living healthier lives could expect to see greater consumer acquisition and retention, as they provide a differentiator in the market and place provide consumers with greater choice.

**Spending more**
- In a recent survey, 70% of consumers with high emotional engagement would spend up to two-times or more on brands they are loyal to, versus only 49% for consumers with low emotional engagement.
- This suggests that creating emotional connections could result in a significant lift in transaction size.

<table>
<thead>
<tr>
<th>PIONEER EXAMPLES</th>
<th>CONSIDERATIONS</th>
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</thead>
<tbody>
<tr>
<td><strong>Earthmiles</strong></td>
<td>The right proposition and value exchange</td>
</tr>
<tr>
<td>Outcomes delivered:</td>
<td>• Loyalty will mean different things to different organisations, so it’s important to understand the right fit for the sector and environment the organisation operates in. Simple offer and reward schemes might work for some organisations, but others will require more emotionally engaging propositions.</td>
</tr>
<tr>
<td>• Encouraging consumers to be active and rewarding those who do so.</td>
<td><strong>Do your maths</strong></td>
</tr>
<tr>
<td>• Allows consumers to see the difference that small changes can make to their daily lives.</td>
<td>• Some loyalty propositions require more investment than others, but are expected to provide a greater return on that investment. Understanding this return, and the business case that sits behind such an offering is vital to ensuring long-term consumer engagement and ongoing success.</td>
</tr>
</tbody>
</table>

**BalticMiles**
- Outcomes delivered:
  - Customers offset the negatives of air travel by burning calories to achieve rewards (i.e. after flying 1000 miles, burning 1000 calories would result in a reward).

EASE TO IMPLEMENT

**Hard** **Medium** **Easy**
We live in a mobile-first, digitally-driven era right now. And mobile health is taking off just as much — and revolutionising healthcare in the process. Smartphone apps are becoming ubiquitous and customers today have more than one of it in their households. The rise in smartphone use has spawned a massive market for mobile apps that include games, maps and tools. A growing number of health and wellness apps aim to empower smartphone users to change their behaviours and to manage their own health conditions.

### Overview

**Behavioural Change Outcome**

- Improved Motivation through ease and convenience
  - Sticking to an exercise or health regime is made easy by ensuring the right tools to track, monitor and guide user progress when it is conveniently included on their smartphones that they use everyday.

- Improved Commitment through Social Sharing
  - Apps allow users to monitor, track progress and share this with their social networks to remain committed and accountable to their regime. They may also choose to monitor their progress in private and ensure privacy as per their choice.

- Better use of time and quicker access increases engagement
  - Apps allow users to connect and communicate with healthcare providers thus reducing expensive in-person visits and provision care effectively.

### Pioneer Examples

**Under Armour**

- The Under Armour brand has an agnostic “connected fitness” culture; all the apps including MyFitnessPal, together have about 160m users growing by 1m every eight days. An important aspect of mobile health is the fitness side of the equation with the global wearables users potentially outstripping health club memberships by 2020.

**Walgreens**

- Refill by Scan allows users to scan via iPhone or Android the barcode printed on either a prescription bottle label or prescription receipt to seamlessly order a refill in seconds. Refill by Scan also gives users the option to change their store pickup location as well as the pickup time and day.

### Considerations

**Testing**

- User interface and usability are critical to successful mobile app development, and must be tested thoroughly for app navigation, cross-browser compatibility, error handling and generic features.

**Ratings and Reviews**

- App store ranking has an exponential correlation with sales, as they are led by recommendations from one user to another and from coverage on app review sites.
Digital Enabler Overview - Mobile Self-Scan

**Overview**
- Mobile self-scanning, sometimes also referred to as personal shopping or personal scanning, is the ability to let consumers scan their items before they put them into their shopping basket.
- This option is relatively common in grocery stores in Western-European countries like France, UK, the Netherlands, Sweden and Italy. It is much less seen (yet) in North America and Asia Pacific, although we have seen some early adopters, such as Stop & Shop in the USA.
- Mobile self-scanning is particularly well-suited for grocery stores, supermarkets, department stores, super stores and to some extent also for larger specialty stores. In larger stores, self-scanning solutions are usually dedicated scanning devices. In smaller retail formats such as convenience stores, smartphone-based self-scanning solutions are popping up, where consumers have installed a self-scan app onto their mobile device.
- One of the great benefits of mobile self-scanning for consumers is that they can interact with products, receive real-time information about products, ingredients, shelf locations, prices, promotions and recommendations while they are shopping.

**Behavioural Change Outcome**

<table>
<thead>
<tr>
<th>Healthy eating</th>
<th>Improved working conditions for employees</th>
<th>Better awareness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to advise on calorific content of a product.</td>
<td>Employees can spend more time engaging with customers as opposed to working long hours on tills.</td>
<td>Ability to view warning signs more clearly (e.g. flammable products).</td>
</tr>
<tr>
<td>Ability to advise on healthy alternatives.</td>
<td></td>
<td>Identify potential side effects of products.</td>
</tr>
</tbody>
</table>

**Pioneer Examples**

**Walmart Scan & Go**
- Using the provided scanners or the Walmart Scan & Go app on your smartphone, a customer scans everything they put in their basket.
- The app maintains a running total of the items in their cart.
- The customer then simply clicks a button to pay for their goods right from the app.

**Considerations**

**Standardisation**
- For food specifically, how is it possible to create labels for products such as meat? It is impossible to standardise this across all foods.

**Regulations**
- Regulations needed on how much product information is available on smart labels e.g in the allergen section is all the information available to the consumer so that they know they are safe.
**OVERVIEW**

- Peer to peer ratings and Reviews (a form of UGC, user generated content) where consumers voluntarily rate a product or service. Peer reviews have been proven to be a strong influencer of behaviours. One survey found that over 85% of visitors actions were influenced by reviews. These have become a mainstay of retail and increasingly a key part in disrupting other sectors, such as hospitality (AirBnB ratings) and transport (Uber ratings).

**BEHAVIOURAL CHANGE OUTCOME**

**Perceived as more reliable**
- Generally consumers value peer to peer ratings and reviews as they are perceived as more reliable than those from professionals who may have an agenda.

**Strong impact on Choice**
- Studies have shown that peer to peer ratings and reviews can have a strong impact on choice. If the public is supporting the product or service there is a good opportunity to benefit from this good will, however, if they are against it the negative reviews will have just as strong an impact in the wrong direction.

**PIioneer examples**

**Amazon**
- A large amount of amazons early success could be attributed to its customer reviews, as an engine which not only help address customer barriers to purchase, but also helped them to discover new products.

**Tripadvisor**
- The power of trust that Tripadvisor fostered in travellers through the peer reviews has had a quantifiable impact on global economic contribution. Trip advisor content influences 13% of international trips and 8% of all domestic travel worldwide. This translated to over 350 million trips in 2014 alone.

**CONSIDERATIONS**

- Consumers remain cautious about reviews being manipulated by companies ‘planting’ favourable reviews, with well publicised examples of trip advisor and others falling foul of manufactured reviews.
- This is being magnified by the maturity of ‘bots’, automatous piece of software code that simulates real user behaviour, being used to also influence peer to peer ratings on social media platforms.
**DIGITAL ENABLER OVERVIEW - RFID**

**OVERVIEW**
- Consumer Goods and Retailer organisations increasingly face the need to improve productivity due to rise in living wage and margin pressure due to flat sales
- Improved productivity in organisations is requiring them to re-think how they can drive more efficiencies from their employees at warehouses and during manufacturing
- However, this requires clear visibility of stock within the supply chain and the ability to orchestrate it easily through the manufacturing and picking processes.
- Whilst RFID is an enabling technology, the stock visibility it provides can enable more focused operations, provide clear visibility into shrink, evaluate employee and asset movement, and in more recent times, provide a real-time link into what is happening to tracked items within the organisation.

<table>
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<tr>
<th>BEHAVIOURAL CHANGE OUTCOME</th>
<th>PIONEER EXAMPLES</th>
<th>CONSIDERATIONS</th>
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</table>
| **Targeted employee actions leading to improved productivity** | **Tesco** Outcomes delivered:  - Consumers have greater control over their home safety and security through internet connected thermostats, smoke detectors and security cameras, and can be alerted at any time via their mobile device if there is any alarming activity such as a fire or a burglary.  | **Never compare the tag cost to the product cost**  
- The ROI from an RFID implementation is not a straight function of this ratio.  
- It must be calculated based on the benefits of the final solution vs. its cost.  
- You may find that its worth tagging a low value product as the net benefit in efficiency far offsets the cost of the tag.  |
| **Item level information**  
- As tags allow for item-level knowledge, you can easily identify those products that may be under recall, withdrawal, have an expired date code, etc. | **Decathlon** Outcomes delivered:  - Deployed across all stores and DCs for all product types.  
- Benefits: Better stock availability, up to 20% less stock, up to 2.5% sales uplift with Improved security. | **How the ecosystem works together is more important than the RFID provider**  
- It is very important to ensure that the right tags marry up to the readers and be read by a software that is compatible with your core systems.  
- You will have to re-think your label suppliers which is a large business change exercise. |

**EASE TO IMPLEMENT**  
- Hard  
- Medium  
- Easy
SEO results are considered more trustworthy because they are earned search results are the unpaid listings “earning” top search placement by having the most relevant content. SEO is the process of optimising the site to be the most relevant for a given search. SEM is paid search results that ensures placement for given searches. SEM places branded content directly in front of the consumer at the moment they are seeking to purchase or, in the case of information, consume the content. Organic, natural or earned search results are the unpaid listings “earning” top search placement by having the most relevant content. SEO is the process of optimising the site to be the most relevant for a given search.

OVERVIEW

- Healthcare consumers today are seeking personalised and proactive care, and searching for this online is a rudimentary choice. Search, both paid (SEM-Search engine marketing and PPC-Pay-per-click) and unpaid (SEO-Search engine optimisation) should be an integral part of any digital strategy. It puts the product, service or information in front of the consumer at the moment they are seeking to purchase or, in the case of information, consume the content.
- Organic, natural or earned search results are the unpaid listings “earning” top search placement by having the most relevant content. SEO is the process of optimising the site to be the most relevant for a given search.
- SEM is paid search results that ensures placement for given searches. SEM places branded content directly in front of the consumer at precisely the moment that they’re actively seeking treatment. This not only narrows focus to the most relevant patients, it also helps speak to their direct needs. If a user conducts a Google search that matches the specified keyword, a highly-targeted, paid ad will appear alongside that user’s organic search results. When users click on one of these ads, the sponsor of the ad is charged a fee — hence, pay-per-click.

BEHAVIOURAL CHANGE OUTCOME

- **Raise Awareness**
  - Connects consumers who are not aware of your brand to you by matching on keywords being searched for so good for acquisition

- **Supports Engagement with relevant Content Research and Deep Dives**
  - PPC and SEM techniques rewards grow over time, with more click through’s and content made available, the higher Google ranks paid ads and web pages. Inserting messages directly into target demographics encourage word-of-mouth discussion among patient communities and popular forums.

PIONEER EXAMPLES

- **Snickers – PPC target misspelt search**
  - In their ‘you’re not you when you’re hungry’ PPC campaign, Snickers targeted misspelt search terms in a list of top 500 searches, generating several misspellings. The incorrect spellings brought enough traffic to report 550K impressions in 2 days with +1% CTR.

- **FedEx – Optimise for local market**
  - Not able to maintain consistent traffic on their site Fed Ex conducted a full site audit, reviewed their key words, modified the site design and optimised the listing for local markets. This led to a 50% increase in organic traffic

CONSIDERATIONS

- Ensuring brand or products are being found through google, social searches set-up through right keywords and account structure.
- SEO while unpaid to the search engine does require a lot of time to do properly and it can take a long time to see results
- SEO results are considered more trustworthy than SEM results and will therefore have a higher click rate
- SEM Competition in some markets can be fierce driving up costs
The biggest advantage of camera monitoring may come after patients are discharged. Wiring people up to keep track of their health is impractical once they’ve left hospital. If chronically ill people could be monitored from home, they could avoid coming into hospital at all thus overall reducing cost to serve. However, smart cameras are here to stay and are being developed further towards next generation of natural human computer interaction.

**POUNDER EXAMPLES**

OxeyeHealth
- OxeyeHealth’s software uses camera data to measure heart rate, respiration and blood oxygenation from a distance. The company is now trying out the technology in the real world, in hospitals, psychiatric wards and police stations.

Smart Camera for Gesture Analysis
- GestureCam, an FPGA-based smart camera that can recognize simple pre-defined head and hand gestures. GestureBrowser, an extension to the Mozilla Firefox browser which uses the GestureCam to capture and recognize a user’s head and hand gesture commands to control Web navigation.

**CONSIDERATIONS**

Scaling Equipment’s and gear could be cost prohibitive and drive up maintenance costs
- Physical set up include smart camera and lighting system to ensure that target is lit correctly.

Constraints on design
- The design of smart camera as an embedded system is challenging because on one hand video processing has insatiable demand for performance and power, and on the other hand embedded systems place considerable constraints on the design.

Ensuring Security
- A very small object with a bar code can contain a lot of personal information that may be protected depending on various health care or privacy laws, therefore the need to keep personal data secure.
**DIGITAL ENABLER OVERVIEW - Smart Labels**

**OVERVIEW**
- Smart Labels are thin transponders configured under a traditional label which is print-coded.
- The common enhancements in smart label tags are specially configured RFID tags, QR codes, and Electronic Article Surveillance tags.
- Smart labels enable consumers to get additional details about a wide range of food, beverage, pet care, household and personal care products – they can be on the product, the shelf or on packaging.
- Smart labels are also beneficial for brands to track products and inform supply chain and distribution.
- They will change the way people shop and will help them get answers to questions they have on the products they purchase when they want that information.

**BEHAVIOURAL CHANGE OUTCOME**

<table>
<thead>
<tr>
<th>Code Life Visibility</th>
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<tbody>
<tr>
<td>Reduced waste at home by buying a product with the longest code life.</td>
</tr>
<tr>
<td>Indication of product deterioration.</td>
</tr>
</tbody>
</table>

**Truthful and accurate information**
- Access to much more information than a customer would normally have access to including calories, allergens, ingredients, nutritional information, social compliance programmes, usage information.
- Ability to share existing opportunities with customers for special offers, promotions or competitions.

**Speaking the customer’s language**
- Offers multiple language capabilities for the customer.

**PIONEER EXAMPLES**

<table>
<thead>
<tr>
<th>Walgreens</th>
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<tbody>
<tr>
<td>Rolled out a pilot for smart labels in store to share information for food products including allergens, ingredients, nutritional information.</td>
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<thead>
<tr>
<th>Pernod Ricard</th>
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<tbody>
<tr>
<td>Introduced QR codes onto bottles of spirits to support anti-counterfeit strategy and to provide access to rich product information and additional content/services.</td>
</tr>
</tbody>
</table>

**CONSIDERATIONS**

**Standardisation**
- For food specifically, how is it possible to create labels for products such as meat? It is impossible to standardise this across all foods.

**Regulations**
- Regulations needed on how much product information is available on smart labels e.g. in the Allergen section is all the information available to the consumer so that they know they are safe.

**HARD” “MEDIUM” “EASY**

- EASE TO IMPLEMENT
- 3

52
**DIGITAL ENABLER OVERVIEW - Social Media Campaigns / Social influencers**

**OVERVIEW**

- Social Media campaigns can be relatively easy to implement and low cost as the leverage the community, relying on the experience and advocacy of followers. 27% customers use social media to research products prior to purchase and therefore value the opinions of their peers. It is an ideal forum to get messages out quickly and connect with followers when there is both good and bad news to respond to. Social campaigns can take many forms but the common theme, other than originating on social media, is the critical element of engagement from the community. It is important to be creative, identify something that gets people talking and makes them feel like they are part of something.
- Social media is a great tool for listening and responding to your customers/consumers, is a great way to allow them to register/identify on your channels and also now evolving into commerce capability to allow them to show their products from social platforms such as Instagram.

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</table>
| • Instant access on platforms the consumers are on. Diagnosed or symptomatic patients turn to an online world of memes, hashtags, and patient influencers for trusted medical guidance and support. • Greater reach for little cost, influencers can drive reach for no cost with right engagement • It is possible to build a movement and affect real change. Airbnb’s #weaccept and Heineken #openyourworld are great examples | **Heineken #openyourworld**  
• Youtube video with over 14M views and positive reputational boost  
**KFC -11 Herbs & Spices (Indirect)**  
• Over 300k retweets and over 700k likes in 5 days | • Social influencers and communities can be as critical as they are flattering, so it is important to monitor sentiment and respond quickly if there is a negative tone. But being in tune and addressing concerns quickly and directly can create a positive from a negative.  
• Finding the right patient influencer, whose channel goals and objectives and content they publish that aligns with the brand is a complex tasks.  
• Due to heavy regulations, brands might want to take a sponsorship approach to support thought leaders build content (posts, videos or blogs) and allow them to build trust with their target audience, rather than directly market products.  
• Ownership of data and privacy. |
**VERVIEW**

- As the cost reduces and access to VR/AR enabled device increases, we will start to see a major new channel developing to engage all manner of users from colleagues to patients to consumers.
- Both AR and VR will enable immersive experiences to be created to engage, educate and entertain users.
- AR in particular has the potential to help layer onto peoples surroundings new insights, information and experiences to also improve productivity and enhance existing physical products, services or experiences.
- By 2020 the economic impact of these technologies is estimated at $29.5 billion.

**BEHAVIOURAL CHANGE**

Higher customer engagement

- Inspire people to make positive change, through visualising information in a new way.
- Represent changes to physical spaces, environment and entities to educate and entertain.
- Augmented Reality on product signs to compare the nutritional information of products, for example sugar content.
- Help guide customers in supermarkets to the most healthy options for them.
- Help users visualise entire new environments without needing to physically travel.
- Help rehabilitate people, through virtual experiences that motivate them to make certain movements.

**PIONEER EXAMPLES**

**Limbic Life: Project VITALICS**

- To help those with diminished mobility.
  - Limbic Life created a special chair with a Gear VR headset that allows users to more intuitively move their bodies while virtually experiencing day to day experiences with a rehabilitative use of their hands and legs.

**Pokemon Go**

- On the day it launched, the game surpassed the daily time usage of Facebook, Snapchat and Twitter.
- It helped gamify and inspire a vast number of people to get out and start exploring their local environments.

**CONSIDERATIONS**

- Access to devices capable of running these experiences is still limited to many.
- Content production costs to develop and maintain VR/AR experiences will be high in the short term.
- Possible health risks of VR, if experiences begin to distract people from the real world.
- Possible health and safety risks of AR, if used to distract people in circumstance this would be dangerous such as driving or walking.
DIGITAL ENABLER OVERVIEW - Voice Assistants

OVERVIEW

- The use of voice assistants has grown rapidly over recent years, with Amazon’s Alexa, Google Home and Siri becoming increasingly popular with consumers in their everyday lives, with over 1 billion searches per month being made using voice assistants.
- Consumers are using voice assistants to support them in various aspects of their lives, whether it’s to search for information, play music or to purchase a product or service.
- Voice assistants are shortening the traditional path to purchase and the increasing number of connected devices in our homes are merging the points of engagement and transaction.
- Rapid technological advances, coupled with increasing consumer appetite for voice devices, is driving investment and innovation. This, coupled with the belief that providing a good voice assistant experience will secure bigger consumer spend, means that the growth trend of this technology is set to continue.

BEHAVIOURAL CHANGE OUTCOME

Heightened awareness and consideration of brand
- Brands that enable voice technology are likely to increase their awareness with consumers and are more likely to be considered for products and services of relevance in the future.

Reducing the impact of brands on product choice
- One of the main drivers for using voice assistants is for convenience – customers want to order products quickly and easily, which can have an impact on the brand that’s chosen (e.g. if I ask Amazon for wipes, it will generate the product which is most relevant and can be delivered the quickest – which may not be my usual brand of choice).

PIONEER EXAMPLES

Sephora
Outcomes delivered:
- The French cosmetics retailer, Sephora, recently launched its app on Google Assistant. Google’s voice-activated virtual personal assistant.15 The assistant allows consumers to book beauty services, with more functions soon to come.

Johnnie Walker
Outcomes delivered:
- Collaborated with Amazon’s Alexa to produce ‘Johnnie Walker Skill’, which guides users through personalised tastings, recommends blends, shares anecdotes from the Johnnie Walker history and provides tips and recommendations, allowing customers to entertain at home using voice technology.

CONSIDERATIONS

- Consumers main use for voice assistants is to search for basic information, and the interaction between consumer and voice assistant is transactional – but this is changing rapidly with advances in AI and machine learning.
- Interactions are set to be more personal and human in the future, with voice bots set to play a bigger role in consumers’ lives.
- Customer data is an increasingly hot topic, as consumers become more aware of how their data is utilised. Brands should be aware of these concerns, and use customer data in a way that provides a valuable exchange for the consumer (for example, personalising the experience in future interactions).
- Customers require either smart phones or devices to engage, so reach is still limited, especially in less affluent groups.

EASE TO IMPLEMENT: Medium
The Consumer Goods Forum (CGF) is a global, parity-based industry network that is driven by its members to encourage the global adoption of practices and standards that serve the consumer goods industry worldwide. It brings together the CEOs and senior management of some 400 retailers, manufacturers, service providers, and other stakeholders across 70 countries, and it reflects the diversity of the industry in geography, size, product category and format. Its member companies have combined sales of EUR 3.5 trillion and directly employ nearly 10 million people, with a further 90 million related jobs estimated along the value chain. It is governed by its Board of Directors, which comprises more than 50 manufacturer and retailer CEOs.

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