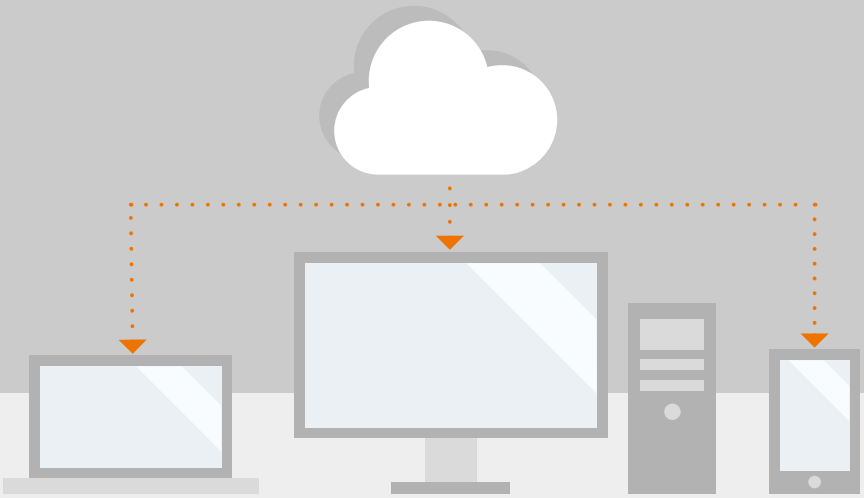
IT & Digital Strategy



Swindon Borough Council

Contents

1. Background

Where We Are Now

Swindon Borough Council has begun to rapidly evolve to meet the digital needs of it's staff and residents. In the last three years SBC has adopted more digital processes and services while making significant financial savings. The IT team for Swindon has also stabilised the service with a 75% reduction in major incidents, proving a platform for more digital improvements.

This IT and Digital strategy is intended to support the business through the next phase of it's development and has been formed by industry trends, best practice, feedback from the 2019 IT staff survey results and audit recommendations. Speed and agility are key in a digital world and with emerging technologies being a core component of this strategy we do not want to set a vision beyond 2022.

Where We Want to Be

Swindon will become a modern, efficient and effective organisation. This strategy details targeted improvements that will enable us to:

- Update our aged hardware, from datacentre to staff computers
- Provide a future focused training plan for our staff
- Further improve our data and information security
- Embrace emerging technology to improve our internal and external facing services

What it Will Feel Like:

Our staff will feel ready and able to drive the business in a digitally focused direction, with the right tools and skills to deliver. Our services will feel efficient and effective.

This strategy reflects the internal work that the Council needs to do to work effectively with its major partners in the public and private sector and complements our key partners own IT and Digital strategies.

2. IT

The IT service has stabilised and it is now time to start building on this success and develop the right skills to deploy the best software and tools for the staff and residents of Swindon. We will mature our performance management to better to deliver these services and make them even more available than before. Security will become a greater focus as we look to future proof our services with modern functionality.

2.1 People and Skills

Swindon IT has progressed immensely since in-sourcing IT Operations. This has seen us overhaul major business systems, reduce major incidents by 75% and increase our customer satisfaction score since 2015.

The people in IT are instrumental to this success, and in order to stay ahead of the curve, and attract and retain the skilled people we will invest in training and development. This will be a combination of cross training, good contract management to maximise benefits of suppliers and their services, and investment in training programmes to ensure IT staff are skilled for the new technologies they will be implementing, supporting and using. This will include mobile working platforms such as tablet and hybrid devices.

What we will do by 2022: We will review the skills needed for the period of this strategy and ensure training and recruitment is aligned to this.

2.2 Data and Information Security Governance

Swindon needs excellent data and information security standards which ensure best practice in both prevention and response. Governance that works with the wider business is key and an IT Steering Group will be formed to enable effective strategic partnering between IT and the wider council.

Excellent cyber security is essential to all businesses and the responsibility of all staff. The risk is heightened in local government by the valuable sensitive and personal data that we hold. This type of data is frequently targeted by hacktivists to then hold businesses at ransom for money. Prevention is the first line of defence. The global threat of Cyber Attacks continue to rise each year, with Jan – Sept 2019 seeing a record breaking 5,183 breaches, exposing some 7.9 billion records.

https://www.helpnetsecurity.com/2019/11/14/breaches-2019/

a) Preventing a Cyber Attack:

The most common back door to any business's data and systems is its staff. We will reduce this risk through education of staff and political members to follow best practice when working online and using email.

£20k LGA funding has been secured and will be used for members training as well as email phishing tests across the test and inform our user base. These phishing tests will be used to educate the business on how to spot a malicious email and what to do in the event of receiving one.

Swindon Borough Council achieved PSN compliance in 2018-19 and must retain this standard by demonstrating ongoing conformance to ever changing threat landscapes.

A capital bid for £50,000 has been raised to

help invest in new tools like Privileged Access Management (PAM), essential for modern management of IT admin rights which, if breached, would allow an attacker significant access. The use of a PAM tool will allow us to better facilitate appropriate Identity and Access Management rights as and when needed, rather than the old fashioned way of IT admins having access by default. The bid will also support the ongoing maintenance of key tools like our remote access solutions, firewalls and VPN, all of these tools are integral in keeping our cyber defences up to date and reduce the chances of a breach.

Mobile Device Management (MDM) will be a key PSN factor for 2020-21 and will deliver the Windows InTune Platform to secure mobile phones and tablet devices. This will allow us to publish trusted Apps and block Apps that are known to use data in a non GDPR compliant manner. It will also allow us to block and wipe these devices remotely, offering enhanced security of lost or stolen devices. Finally, MDM will also allow us to roll out Multi Factor Authentication to enable National Cyber Security Centre approved levels of security for internet based access for Microsoft 365. This will also bring productivity improvements by providing our staff with 24/7 self-service password resets.

b) Responding to a Cyber Attack: Cyber Response Plan

Cyber security is the responsibility of all staff and not just an IT exercise.

In preparation for a cyber-attack Swindon Borough Council will build a Cyber-Response team that can assess the scale, duration and impact of any event. This team will have key players from across the business as well as key suppliers and partners.

There will be a Cyber-Response plan and Business Continuity Plans will be prepared and rehearsed to build staff confidence and competence to keep the business running in the event of a total IT outage.

Swindon will learn from victims of cyber-crime crime like Copeland Borough Council, who saw their systems compromised by a brand new threat that their up to date anti-virus could not prevent.

https://www.local.gov.uk/copeland-borough-council-managing-cyber-attack

When planning and building a cyber-response plan Swindon will use expertise from areas like the Nation Cyber Security Centre.

https://www.ncsc.gov.uk/section/advice-guidance/all-topics?topics=cyber strategy&sort=date%2Bdesc&start=0&rows=20

c) Responding to a Cyber Attack: Restoring IT Services

In the event of a breach, IT will ensure services are restored as quickly as possible.

Backups and the ability to easily restore services and data is key to resilience. Swindon's investment in its in-house datacentre improvements have seen us out grow the current backup solution. We are investing in a modern backup solution with greater ability to restore, archive and de-duplicate our data. This smart management of data will also help reduce the risk of an ever expanding need for expensive storage. This will move us forwards on our objective to have a resilient link between our two Swindon datacentres with stretch clustering to enable services to be live in either datacentre in the event of an outage.

Training exercises will be run within IT using the National Cyber Security Centre Exercise in a Box tools to help develop, test and practice our IT specific cyber-attack response processes.

What we will do by 2022: Form a Cyber Response Team and rehearse our Cyber Response Plan. Use this focus to mature the businesses Business Continuity Plans. Implement a new backup system with overhauled processes.

2.3 IT Availability

a) Further improve IT availability

Our user base consistently rate the availability of IT systems as important to them. With a 75% reduction in major incidents from 2015 we now need to continually improve on this by focusing on the uptime of our core applications and infrastructure. We will:

- Agree the business's most critical of applications with the support of the IT Steering Group
- Confirm the fastest achievable restoration time of these apps
- We will publish an up to date list of approved and supported systems by way of an online Service Catalogue following established industry principles.

This will enable us to better manage the support of any new or retiring services while maintaining the Service Catalogue. Once formalised we will produce focused monthly reports that will help to monitor, and further improve the availability of these systems.

We will further improve our in-house data centre resilience with stretch clustering between sites and add additional working from home capacity in the migration to the modern Always on VPN solution.

We will explore the option of having Wi-Fi as our primary network to further increase the availability of services to staff who work on a mobile basis.

We will deliver annual refresh programmes which ensure our computers are replaced every 5 years so that the age of our hardware is not a cause of staff downtime.

What we will do by 2022: Complete stretch clustering work between Swindon's two data centres to enable resilience between both sites. Use new reporting methods to better manage IT availability.

2.4 Cloud Services

a) Choosing the Right Platform

As the cost for cloud services continues to fall it is important for Swindon to have a clear methodology for selecting the best hosting platform for its services. Swindon IT completed the in-sourcing of servers from the Capita Private Cloud in December 2019, this achieved significant system performance improvements and cost savings for the business. It also means that Swindon is able to control what it does next with these platforms.

We will continue our hybrid model of on premise and cloud services to further enable high resilience in the event of a disaster situation, as well as optimum performance and cost. Starting with procurement exercises, we will produce a model to ensure the right platform is chosen. Swindon will work with industry experts including SOCTIM to build a model that outlines the required criteria of

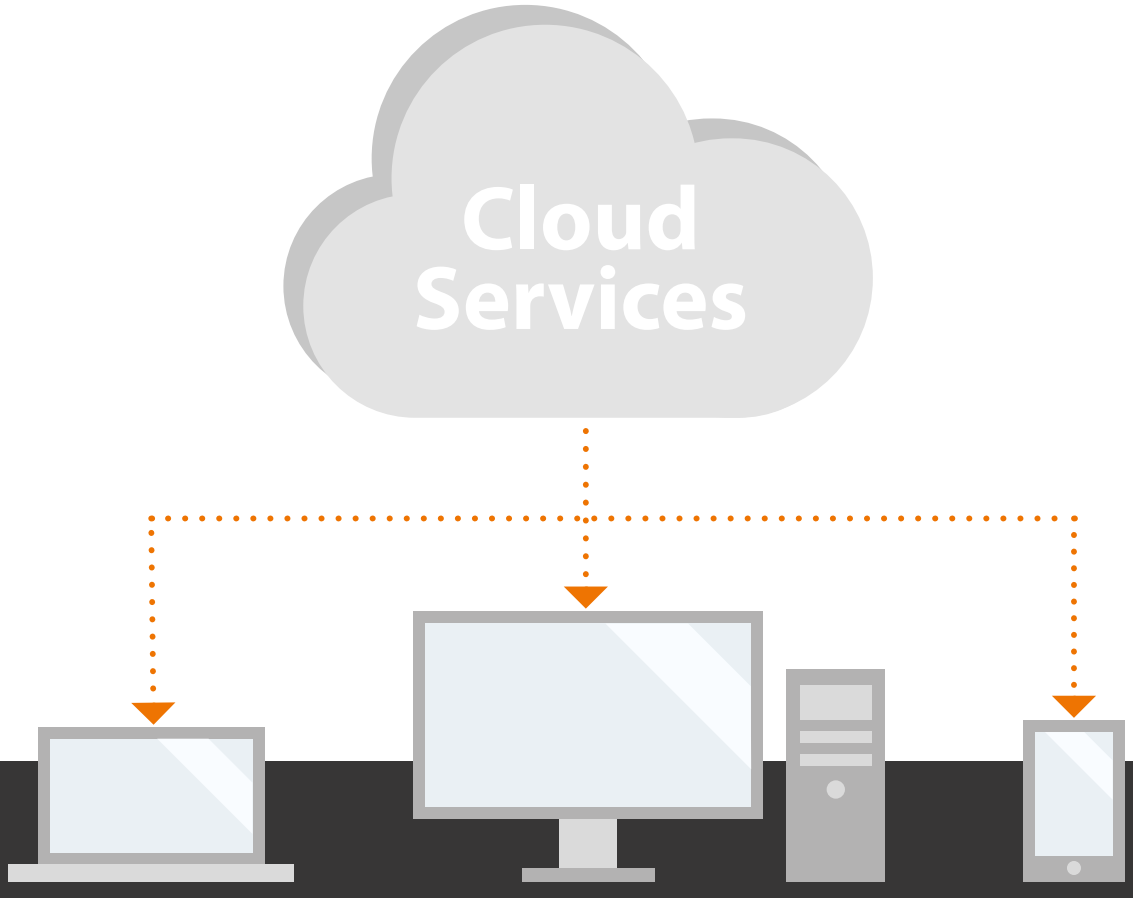
hosting a service in the Swindon datacentre vs the Cloud. This model will then be applied by the business after Soft Market Testing before we go out to tender. This will enable better business decisions and reduce risk of suppliers or staff taking Swindon onto a platform that does not serve our best interests. Swindon will need to be open to use of any supplier platform within the framework of the model to be defined.

The model will ensure we are making decisions that allow the best achievable outcomes that enable a fit for purpose, affordable, flexible, secure, compliant outcome with good user experience which is future proofed to business needs and industry standards. Carbon neutrality will also be key to choosing future platforms.

This model will drive more adoption of cloud services as the market price for these services continue to decrease. The net revenue change will be determined by how many systems are tendered over the strategy period. The majority of our major applications will still be in contract as they have been implemented over the last 2 years. An application strategy will be developed during 2020 to inform, what happens at the end of those contract periods.

What we will do by 2022

Produce a model which enables the business to be decide what platform is best for each system tender. Taking into account factors like cost, benefits, carbon footprint amd support.



3. Digital

The Council needs to embrace modern digital technology to meet the expectations of its residents in interacting with the Council and to maintain services to a good standard within our funding envelope. We will use digital tools and skills to drive down operational costs for the Council making our services more cost effective. We are currently operating from a reasonable base as a result of our journey so far, but we must continue to grow our capabilities at a faster rate. The success of the digital element of this strategy will be measured by whether we have the utilities in place to enable a smart cities plan to be produced in 2022, achieving 85% take-up of our digital offer and by increasing the productivity of our staff who will use the tools at their disposal effectively in the delivery of their roles.

3.1 Digital Economy

> 'Delivery against the ambition for Swindon to compete at the forefront of digital innovation with a commitment to using technology for positive change.'
>
> As part of the delivery of pledge #1.

We aim to build a digital utility with industry 4.0 principles (https://en.wikipedia.org/wiki/Industry_4.0). This will encourage businesses to come to Swindon to increase employment in this sector.

Our Journey so far

- Superfast Broadband services (>24mpbs) are available to 99.83% of premises in the borough
- A digital cluster of business units have taken up residence at the Workshed
- An increase in digital SME's in the borough
- A renewed focus on the part of STEM education across all age ranges

What will we do by 2022

- Work with the private sector to enable high-speed internet connectivity and the latest mobile communications including 5G for businesses, residents and utilisation by the council
- Deliver a low-frequency WAN across the entire borough for residents and businesses to utilise
- Deliver public Wi-Fi in the town centre to promote public planning, safety and encourage growth. This will be funded by grants.
- Explore Smart Cities and Assistive Technology market capabilities to deliver some Proof of Concept projects and provide a detailed plan based on a range of data sets for consideration in 2022

3.2 Digital Offer

> 'To provide efficient customer-centric access to services for those residents who can do so and wish to do so through digital platforms in alignment with the Customer Access Strategy'.

This means making sure that Council services can be accessed via the internet, and are user-friendly by designing services, end-to-end, with, and for, the customer and service users.

Our journey so far

- We have had over 60,000 citizens register for our My Account citizen portal.
- 95% of all customer facing processes are available in forms through the website
- A new self-service reception has been created within Customer Services to provide face to face support to those residents who need it.
- We have worked towards our goal of 85% take-up of our online offering. Starting at 10% in April 2018, we are currently at 64% of transactions taking place online.

What will we do by 2022

- Digital assistance will be provided to ensure that customers can access services for themselves. This includes at our Customer Services Reception and also digital tools across other locations such as libraries.
- Live Chat, Chatbots and other forms of Artificial Intelligence will be available on our websites to help residents find content more easily and interact with the council at times that suit them.
- We will develop smart speaker skills for council services to make it easier for residents to access information from home.
- Continuous improvement of our website process to provide the best possible user experience that meets the most recent accessibility and design standards.
- Digital skills for residents will be addressed in a published document later this year. Whilst digital skills and inclusion are recognised dependencies on the success of this strategy they do not form part of the delivery of the strategy.

Customer Access Strategy:
http://sbcvpwmmgv02:9070/ieListDocuments.aspx?CId=285&MId=9460&Ver=4

3.3 Digital Workforce

> 'To provide Swindon Borough Council employees and volunteers with the technology and skills they need to undertake their role in a more modern, efficient and effective way.'

The work in this theme is aligned with the Council Plan and will improve productivity.

Our journey so far

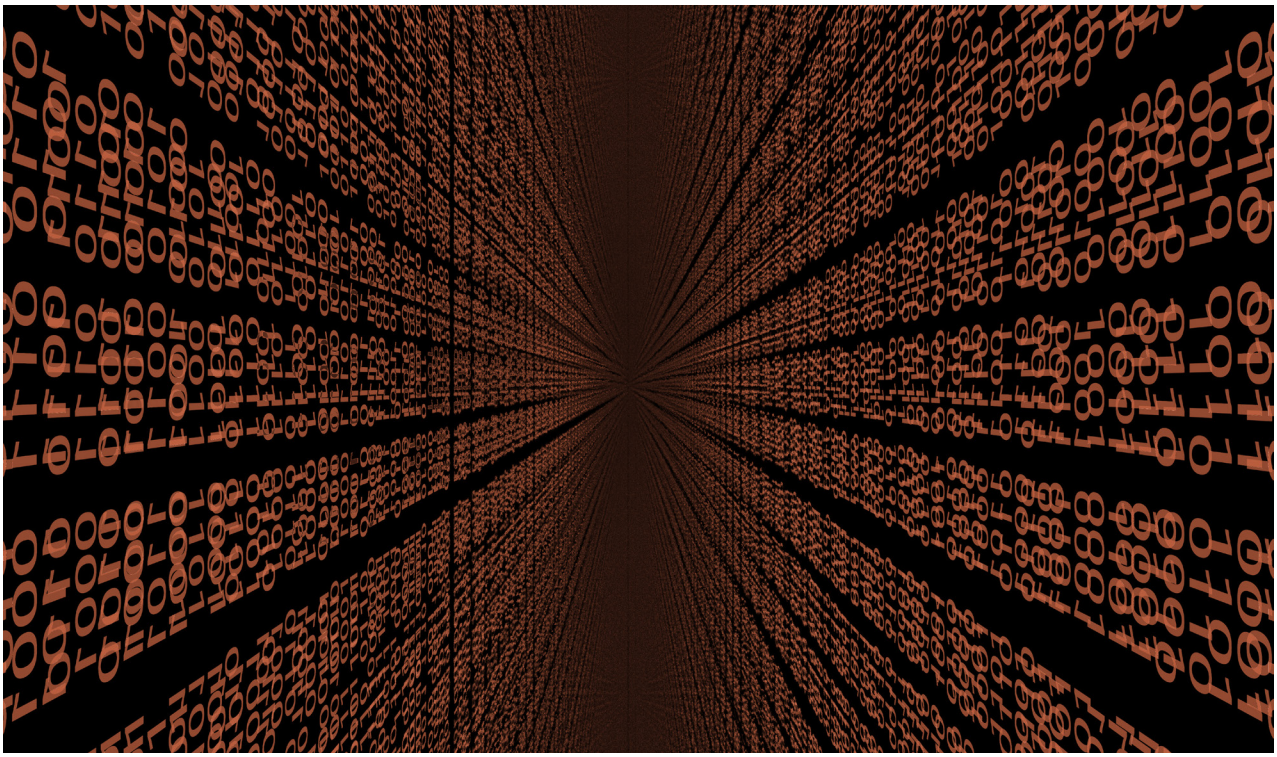
- The Council has reduced the number of printed copies from 15M per annum to 6M per annum in 3 years making our processes more efficient, saving costs and reducing our environmental impact
- We have refreshed over half of all desktops and laptops through the Windows10 project
- We have invested in Office365, are utilising a number of the applications within the suite including Exchange, Yammer, SharePoint, Skype for Business and some basic elements of Power Bi

What will we do by 2022

- Increase the ease of internal and external collaboration by using additional Microsoft Office365 tools including Microsoft Teams and extended use of SharePoint Online for document repositories
- Invest in data and analytics capabilities to turn data into insights that enable us to deliver services more effectively and target resources in the areas of most need. We will utilise datasets from across Housing, Childrens and Adults with Power BI to give more Management Information and Business Intelligence to inform evidence based decisions. A new data ethics advisory group will support this work.

- Put in a modern telephony solution for Council employees with soft-phone functionality
- Build a new fit-for-purpose intranet with updated content to support the internal use of self-service, knowledge bases and digital interaction with enabling functions
- Deliver both Proof of Concepts and Full-Scale projects in Emerging Technology tools including Chatbots, Robotic Process Automation, Machine Learning & Artificial Intelligence to automate repeatable processes and integrate systems which will reduce revenue costs
- Investigate the use of drone technology to deliver efficient services
- Offer an increase in IT drop-ins and training opportunities for Councillors
- Work with HROD and the Workforce Modernisation Board on technical capabilities training for staff and volunteers. Providing the right tools and training to more staff outside of IT will create digital capacity across the organisation in developing solutions and ensure digital leadership and maturity becomes part of our organisational culture
- Continue our journey of print reduction until we reach 1M copies per annum by digitalising our internal processes
- Invest in more mobile and remote working for staff to increase the amount of time they can spend in the field. This will be targeted through role profiling and will result in an additional 400 tablet and hybrids for front-line staff
- Expand on the use of the latest assistive technology for social care to support independent living and to reduce the demand on check-in support
- Continue to take the opportunity when available to remove legacy software on the IT estate

Council Plan:
https://www.swindon.gov.uk/downloads/file/5156/council_plan_2016-20



4. Principles in Delivery

We are looking for candidate projects and technologies that are solution agnostic, adaptable, scalable, provide longevity through a fully developed roadmap that is well funded and provide cost-effective proof of concepts to provide evidence for formed business cases.

They must have practical application for delivering capabilities that will increase efficiency and/or bring about additional positive service impacts that have extensibility across the business.

We will not be afraid to 'win or fail fast' in order to gain insight and learning.

Change management and user adoption are key to realising the potential benefits of this strategy. We will use ADKAR methodology to ensure that new tools are effectively used and embedded in the way we work.

5. How will we deliver this strategy and ensure its lasting effects

Funding to deliver this strategy will come from a combination of capital and revenue. Approximately £6.0m of capital funding will be required, of which £920k is already allocated through previous capital bids and the remainder is on the Capital forward plan. Most of the remaining capital funding will be for the data and analytics capabilities that are key enablers for our services and smart cities provisions. A bid for this will come forward on the completion of Proof of Concept(s). We also estimate that an additional £500k of revenue for licences will be required in 2021/22. Each project will have to ensure that they can more than meet their revenue and borrowing costs through cashable savings. This strategy will be delivered as a programme.

The IT department underwent a restructure in March 2020. The current Target Operating Model is still valid, but in order to enable this work to happen an Emerging Technologies team within the IT Change function will need to be created with new roles.

6. Digital Stories

6.1 Robotic Process Automation (RPA)

All of SBC's free school meal eligibility checks are managed manually; an officer completes the checks by copying and pasting information between multiple systems, sending letters and emails to schools and parents. Each check takes 5 minutes, with 6,500 annually, that's 542 hours of officer time per year. Virtual robots can effectively complete repetitive tasks around 6 times faster than an officer; they can work 24hours a day, 365 days a year. Robots emulate the actions of an officer interacting with systems to complete business processes to the rules we set and if the rule is not met then this work goes to the officer for review. This leaves our officers time to focus on resolving complex enquiries and serving the public.

6.2 Chatbots (a form of Artificial Intelligence AI)

A high proportion of calls into the Council relate to requesting basic information or are task-based enquiries suitable for handling by a Chatbot – an automated assistant that can interact with Citizens to help resolve

their enquiries, for example, “when is my bin collection over Christmas?” (for Waste & Recycling 80% of enquiries fall into 3 reasons for contact). With an average phone call costing c. £3.23 vs. a web self-service with a Chatbot costing c.£0.48, there’s a potential saving of £2.75 for each situation where the citizen could satisfactorily complete their intended task through online self-service. Local governments are using Chatbots to engage citizens, make services more accessible, reduce response times, and enable better management of operational administrative officers time so they can focus on serving the public who need the most assistance and the most complex enquiries. SBC has the knowledge to power a Chatbot capable of answering queries because we know why people call, which services are most commonly called and how to respond to questions and/or how to direct citizens to an officer when needed.

6.3 Machine Learning (a form of Artificial Intelligence AI)

The Streetsmart team deal with more than 300 fly-tipping cases a month. When a citizen reports fly-tipping of tyres on the Ridgeway to the Council, the Streetsmart team don’t always have all the information they need. For example, is there 1 car tyre or 50 tractor tyres and whereabouts on the Ridgeway are they? The lack of detail often results in being unable to locate the items, and taking the wrong vehicle leading to multiple attempts to complete the same task. Similarly, when prioritising fly-tipping cases an instance of graffiti that contains offensive language or the presence of discarded hypodermic needles can affect the target response time. By applying Machine Learning to a single photograph of the incident we can ascertain the precise location from the longitude and latitude data contained within the photo, we can analyse the image to automatically detect the ‘type’ of material e.g. fridge, tyre, needles, we can get the quantity of items e.g. 50 and the estimated dimensions and weight. Gathering all the info from a photo can help the team respond appropriately to the incident.

6.4 Assistive Technology

Over the last year Adult Social Care have been using Amazon Echo assist (Alexa) in residential homes to support independent living. This technology can be used for raise an alarm, call friends and family, provide advice for safe living and set important reminders for things like medicines.

Digital Strategy on a Page

Information and Technology

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