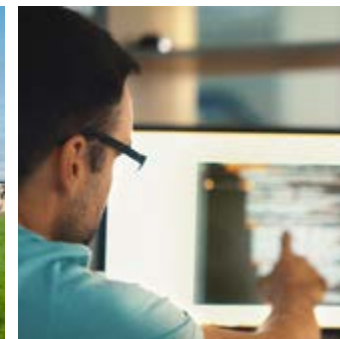
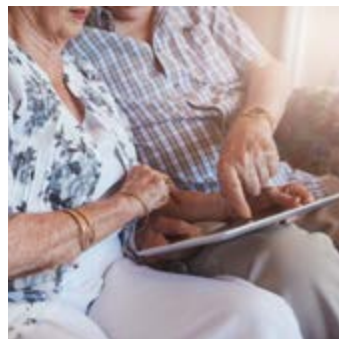


Appendix 2a

ICT/Digital Strategy 2017–2022

Blackpool Council



Contents

Background and context	2-3
Digital/ICT vision	4
Principles	5-7
Risks	8-10
Priorities	11-13

Background and context

The Local Government Sector

The Council is undergoing a period of unprecedented change in an increasingly uncertain future. Consequently there are huge challenges the Council and its services face. These include

- Meeting growing demand with a continually reducing pool of resources and the aftermath of the worst financial crisis in living memory
- The uncertainty of Brexit
- Responding to the demand crisis in the NHS and Social Care
- Maximising the emerging opportunities brought about via the regional devolution agenda

The Blackpool Plan

In 2015 the Council produced a new 5 Year Council Plan 2015-2020

The Council Plan outlines a vision for the future of Blackpool.

The UK's number one family resort with a thriving economy that supports a happy healthy community who are proud of this unique town

The Council Plan provides two overall outward facing priorities and one inward facing priority

Priority One (Outward facing) -

The economy: Maximising growth and opportunity across Blackpool

Priority Two (Outward facing) -

Communities: Creating stronger communities and increasing resilience

Priority Three (Inward facing) -

Organisational Resilience



Background and context

The Global Digital Revolution

Over the past decade digital technologies have radically transformed almost every sector of the economy and digital technologies have become pervasive in most people lives. The mass adoption of hugely powerful but small computers in the form of smartphones and tablets has become widespread. 2.8 billion people 40% of the world's population is now connected to the Internet. A new revolution in sensor technology and artificial intelligence(AI) is starting to creep into our daily lives and the digital revolution is set to take another leap forward with a further 30 billion devices widely anticipated to be connected to the Internet by 2020. This new revolution is known as the Internet of Things(IOT). In parallel to this the collection of huge amounts of data through proliferation of IT systems and now sensor technology is creating new opportunities to turn data into intelligence. A growing revolution in 'Big Data' is leading to new insights and evidence for decision makers and consumers to make more informed evidence based choices. Advances in Artificial Intelligence have led to voice controlled platforms including IBM Watson, Amazon Alexa, Microsoft Cortana and Apple's SIRI creating a new world of opportunities and expectations for both consumers and business.

The consequence of the Digital Revolution is that people's expectations are changing for the services they receive, the places they work and visit. New entrants to the workforce known as Millennials (young people born after the Year 2000) are digital natives, in that they have never operated in a time when technology wasn't a huge part of their lives. As this cohort of the population grows the place of Blackpool needs to change to meet this rising tide of new and different expectations.

In the context of the Blackpool Council Plan all of this has huge implications for how we serve our residents and visitors, how we engage our employees, how we ensure no one is left behind. In reality neither of the Council's two main priorities or the ambition of the Council Plan's Vision can be realised without digital technologies playing a huge role. The Council's own organisational resilience will only be possible through increasing the adoption and effective use of digital technologies.



Digital / ICT vision

What is our vision?

The overarching vision for this Strategy and mission for the Council's ICT Service is to

make Blackpool digital

This means we will seek to enable

- The delivery of **digital customer service** for our residents and visitors enabling citizens and visitors to get what they need whilst minimizing our bureaucracy and costs
- Empower a **digital workforce** within the Council to make the best use of digital technologies, to learn and experiment with the art of the possible whilst using data turned into intelligence to make more informed decisions.
- Blackpool to be a **digital place** with thriving digital skills and access, digital services, high speed connectivity, smart infrastructure, smart sensors and strong cyber defences enabling Blackpool to have a thriving economy with a particular emphasis on tourism.
- **Digital collaboration** to enable the Council to work effectively itself, across its partners and the wider region to tackle complex issues and reshape public services around shared working and devolution agendas.



Principles

Guiding Principles

In order to make best use of our limited resources to deliver the vision the ICT Service will be guided by the following principles.

This means we will seek to enable

- **Pick what is right, not what is cheapest** Ensuring we have a high quality technology offering for our customers which will stand the test of time, offer great whole life value and ensure we do not fall behind.
- **On Premise v Cloud services** We will judge each requirement individually on its merits and will remain agnostic. Whilst we recognise the Cloud offers huge opportunities and will increasingly become the norm the business case does not always stack up financially or can sometimes be intangible. The Council's on premises data centres are also a private Cloud in their own right with technologies that rival many Infrastructure as a Service (IaaS) providers. The data centres already act as a community cloud for a number public and third sector partners. We will seek to maximise the value of the Council's private cloud when appropriate whilst taking advantage of new external Clouds where it makes sense.
- **Resilience & Reliability** We will only deploy solutions that are known to be reliable and have adequate redundancy and recovery built in. We will seek to minimise single points of failure in technology and within our people capacity and knowledge.
- **In-house Expertise and collaboration** We cannot possibly have the full range of expertise in-house to deliver the full diversity of skill sets required to deliver and develop all the Council's and our external customers ICT requirements. We will therefore deliver a hybrid model which utilises our in-house strengths whilst supplementing them with outside expertise through agile partnerships with the private sector or other public sector partners.
- **Income generation and sustainability** Over a third of the ICT Service is now funded through service provision to non-Council services. The recent years of budget cuts have reduced the service staffing budget significantly but we have stayed viable through income generation. This has enabled us to keep skilled jobs in Blackpool whilst providing valuable services to the Council and other public sector/third sector organisations. We will continue to value and grow service provision for non-Council Services as austerity continues to bite and new collaborative opportunities continue to emerge. However this will be balanced with remaining focused on what matters to Blackpool and what resonates with the wider regional agendas.
- **Software systems and suppliers** The Council spends significant sums of money on software with multiple suppliers. We will seek that our software suppliers develop open API's to enable greater interoperability and integration across our disparate systems whilst enabling greater data sharing and intelligence within the Council and that of our partners.
- **Customer Experience** We recognise digital services stand or fall by their ease of use and navigation. The Customer Experience on Digital channels needs to be as good as if not better than traditional contact channels if our customers are to go digital. We will strive to achieve this and be relentless in the pursuit in providing digital services with a great customer experience.

Principles

- **Network Assets** The Council owns its own network assets in four BT exchanges, an extensive wireless infrastructure on Blackpool Tower, a private fibre optic network in several areas of the town and a large free public WiFi service. The ICT service will seek to exploit and develop these assets to meet the Council's connectivity needs but will also use the assets when possible to support regeneration activities such as along the promenade and the enterprise zones.
- **Smart City & Internet of Things (IOT)** The Internet of Things is the next revolution of the Internet and given the Council's existing network assets Blackpool is well placed to be at the forefront of emerging opportunities in this space. The ICT Service will seek to exploit the existing network infrastructure to support and develop an IOT network which can enable a smarter Blackpool.
- **Big Data and business intelligence** The Council has over 250 business software systems. Many of these systems collect data and report data within the context of the services they support. However to understand some of Blackpool's most complex issues data needs to be matched and interrogated across the system silos and some times with data that resides within other partner systems such as the NHS. The IT systems can hold terabytes of data making the Council data rich but without a strategic approach and BI architecture the Council can still be information poor on which to base its important decisions. Over the coming years we will seek to develop the Council BI architecture and capabilities with tools that support a strategic approach to querying and visualizing data. We will seek to develop approaches to storing and querying Big Data since datasets are likely to grow and new insights become possible through the emerging possibilities with IOT technologies.
- **Microsoft/Apple/Google/Open source Platforms** The Council has traditionally invested in Microsoft platforms and a large part of the Council's previous investments in legacy business applications have significant dependencies and integrations with the Microsoft platform. A wholesale move away from Microsoft platforms would create a significant challenge, unjustifiable business and financial risks. Recently the Council has successfully migrated to Office365 and this is providing new opportunities to gain greater value from the Microsoft investment with a new collaborative digital environment taking advantages of the Microsoft cloud technologies whilst providing the assurance for the Council's legacy software investments. The new Office365 platform is also designed to work on Apple's mobile platform IOS which drives iPhones and iPads. The iPad and the iPhone have proved to be extremely reliable and popular. We will seek to exploit this value alongside Microsoft products as with the new Microsoft Windows 10 Surface type devices. Recently the ICT Service has made the decision to provide the iPhone as the mobile device of choice due to its stability, security and superior battery life. The ICT Service also supports Schools and Community Groups who don't have the same dependencies as the wider Council on Microsoft products. In these scenarios our platform of choice is the Google Platform. In the case of Libraries and Schools it has proven to be a more cost effective proposition whilst providing our customers with constantly improving digital experiences. Many great IT products now use open-source platforms and where it makes sense and opportunities arise to exploit open source technology without undermining the wider investments in non-open source platforms, we will continue to make effective use of open-source platforms and where appropriate grow these solutions.

Principles

- **Supporting Mobile Digital** Being able to access systems with mobile technology continues to be massively important to enable the Council to be agile, meet demand, provide high quality customer experiences and provide more with less, facilitate less dependency. The Council websites are continually being developed to be responsive to mobile technology, where it makes sense we are looking to build and procure customer experiences apps which enable residents and visitors to more easily get what they need from the Council. Much of the Council legacy software wasn't built with mobile access in mind and when mobile services have been provided many back office software suppliers have failed to understand and iterate the customer experiences to the quality we would expect. We are therefore seeking to ensure all mobile customer interfaces are developed to a high standard and adaptable to changing customer needs. In order to achieve this we will seek to influence services and software suppliers to only provide high quality digital customer experiences preferably using open APIs making it more straightforward to adapt and iterate mobile experiences to meet changing customer needs.
- **Cyber Security and Data Protection** As the Council's dependency on digital technologies continues to increase so do the cyber threats. No organisation's ICT infrastructure can be 100% secure but risks can be kept to a minimum by constantly iterating and testing the Council's security posture. Loss of reputation or damage from cyber-attack or data loss could quickly undo many of the Council's advances with digital technologies. Cyber security and data security will be at the heart of all we do as an ICT Service. We will constantly endeavour to build and maintain appropriate levels of security whilst educating our employees and service users on the evolving threats and what they can do to minimise the risks. We will also prepare to deal with and respond to the inevitable cyber attack or data loss. We will constantly test our systems for vulnerabilities using qualified third parties to advise us on where our weaknesses lie and how we need to strengthen our defences.



Risks

This section sets out the overarching risks which the ICT/Digital Strategy faces, and how we will approach them. A more detailed risk register will be maintained as a live document over the strategy period 2017-22.




















- The Council fails to adapt to using new digital channels and processes fast enough leading to increasingly expensive and inefficient customer experiences and uncontrollable demand. It is vital that the channel shift and digital agenda remain high on the whole Council's agenda and that continual process improvement is embedded in the culture of every Council service.
- The Resort falls behind other towns, cities and holiday destinations in adopting smart cities technologies leading to a poor visitor perception and experience, long term decline in the number of visits and private investment. The Council needs to build a shared digital infrastructure across the resort, working with its partners public and private to provide visitors with joined up digital experiences that delight visitors to the resort and provide real-time data to visitors to make informed decisions that enable them to get the most out of their visit to the resort.
- Managers and leaders fail to grasp the opportunities digital can now enable continuing to perpetuate old inefficient and expensive ways of working. Digital needs to be on every manager's and leader's agenda. It cannot be done in isolation from the ICT Service nor can it be done solely by the ICT Service. Every manager and leader needs to be planning how they will take advantage of the opportunities digital affords and how they will develop their workforce and service to keep pace with new technologies improve their customers' experiences.



- Ignoring the Millennial generation's use of digital. The Millennial generation value digital far greater than any generation before them. They have been connected throughout their lives and embrace digital in their social lives and within their working lives. Blackpool's future depends on this generation and Blackpool needs to ensure it is relevant to this generation both as an employer and as a destination. Ignoring this will make employers less attractive to this new generation and Blackpool as destination less desirable. The Council and the resort needs to find ways of attracting investment in digital technologies to ensure it is not left behind and is relevant to this generation.

Generational attitudes towards digital

The following chart illustrates the generational attitudes towards digital and acts as a useful reference point to appreciate how the different generations make use of digital technologies.

Characteristics	Maturists (pre-1945)	Baby Boomers (1945-1960)	Generation X (1961-1980)	Generation Y (1981-1995)	Generation Z (Born after 1995)
Formative experiences	Second World War Rationing Fixed-gender roles Rock 'n' Roll Nuclear families Defined gender roles - particularly for women	Cold War Post-War boom "Swinging Sixties" Apollo Moon Landings Youth culture Woodstock Family-orientated Rise of the teenager	End of Cold War Fall of Berlin Wall Reagan / Gorbachev Thatcherism Live Aid Introduction of first PC Early mobile technology Latch-key kids; rising levels of divorce	9/11 terrorist attacks PlayStation Social media Invasion of Iraq Reality TV Google Earth Glastonbury	Economic downturn Global warming Global focus Mobile devices Energy crisis Arab Spring Produce own media Cloud computing Wiki-leaks
Percentage in U.K. workforce	3%	33%	35%	29%	Currently employed in either part-time jobs or new apprenticeships
Aspiration	Home ownership	Job security	Work-life balance	Freedom and flexibility	Security and stability
Attitude toward technology	Largely disengaged	Early information technology (IT) adaptors	Digital Immigrants	Digital Natives	"Technoholics" - entirely dependent on IT; limited grasp of alternatives
Attitude toward career	Jobs are for life	Organisational - careers are defined by employers	Early "portfolio" careers – loyal to profession, not necessarily to employer	Digital entrepreneurs - work "with" organisations not "for"	Career multitaskers - will move seamlessly between organisations and "pop-up" business
Signature product	 Automobile	 Television	 Personal Computer	 Tablet/Smart Phone	Google glass, graphene, nano-computing, 3-D printing, driverless cars
Communication media	 Formal letter	 Telephone	 E-mail and text message	 Text or social media	 Hand held (or integrated into clothing) communication devices
Communication preference	 Face-to-face	 Face-to-face ideally, but telephone or email if required	 Text messaging or e-mail	 Online and mobile (text messaging)	 Facetime
Preference when making financial decisions	 Face-to-face meetings	 Face-to-face ideally, but increasingly will go online	 Online – would prefer face-to-face if time permitting	 Face-to-face	 Solutions will be digitally crowd-sourced

Risks

- Lack of digital skills. Most jobs now require employees to have digital literacy but many high value jobs already require more than just digital literacy but deeper understandings of digital technologies and many future jobs may well require increasing numbers of employees to understand and create code. Building the resort's digital capacity will be key to attracting and maintaining investment, high quality employers and a vibrant economy.
- The fight against cyber attack will continue to grow. At the time of writing the Council's security filters were blocking 97% of emails sent to the Council as SPAM. It is inevitable with such high volumes a small number of zero day threat emails (not yet known to be a threat emails) will by pass the filters. We therefore need to ensure our employees are educated enough to recognise these and act wisely. A number of high profile hacks on large companies have led to passwords being compromised and this has created risks where users have used the same often weak passwords multiple times. We need to ensure employees are educated to appropriately manage their passwords. A successful cyber attack could quickly destroy the Council's reputation and our investment in digital needs to be closely matched by our investment in Cyber defences.
- The Council fails to be compliant with the General Data Protection Regulation which comes into force in May 2018 leading to a significant risk of huge fines (up to 4% of turnover) and significant loss of reputation undermining the Council's investment in Digital Channels.



Priorities

Digital Customer Service

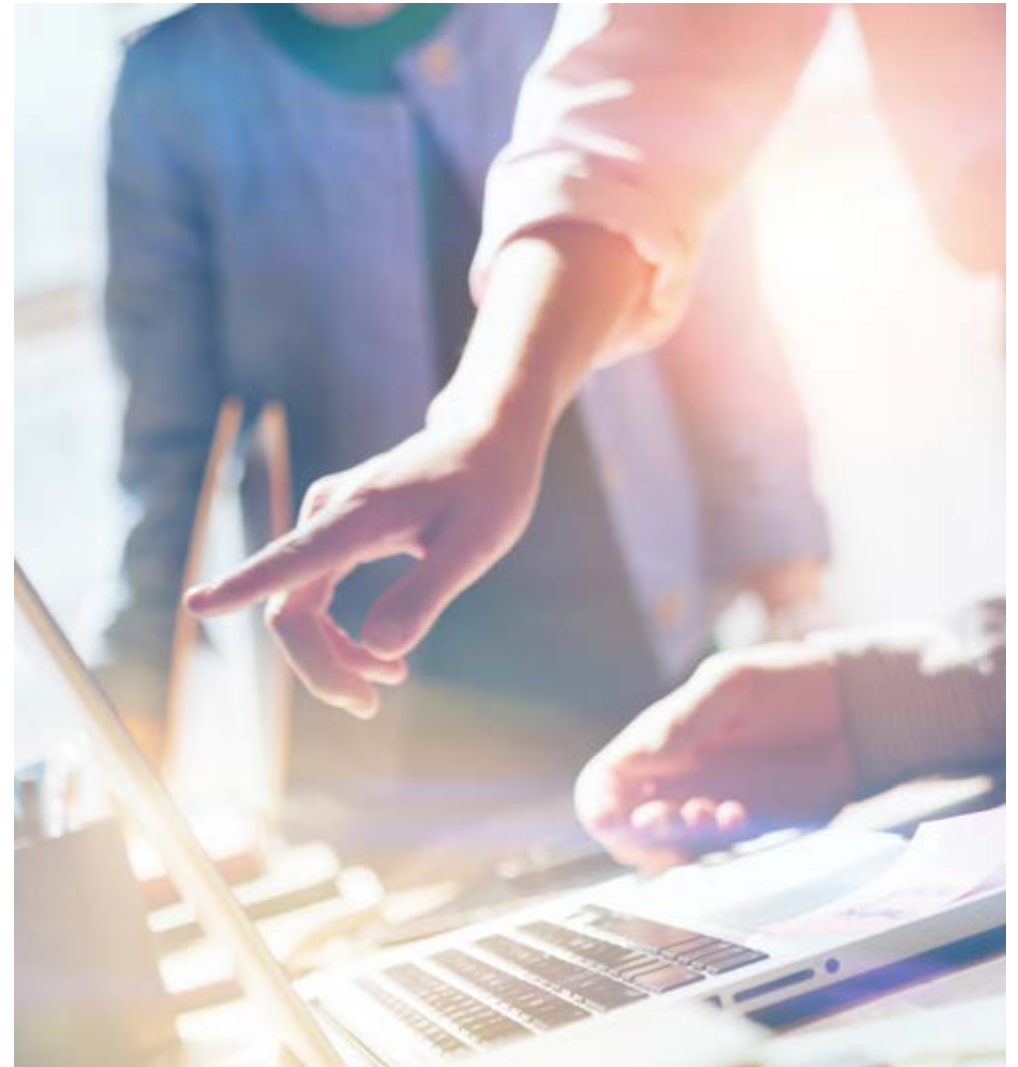
- Continue to build momentum with Channel Shift and Demand Management embedding a culture across the Council with continual process improvement using digital when appropriate to deliver the very best customer experiences.
- Make the Council simple for residents and visitors to interact with by developing enabling digital channels and services developing easy to use web and app services.
- Where appropriate make the Council's data more open with the purpose of reducing demand and providing greater transparency.
- Pilot emerging technologies that may improve Customer experiences and flow such as Artificial Intelligence(AI) chat bots or voice control systems.



Priorities

Digital Workforce

- Support leaders, managers and employees to understand the art of the possible and untapped potential in the Council digital platforms and enable them iterate and experiment with new digital tools and platforms to improve service delivery and employee productivity.
- Further enable field based roles to streamline their service delivery by providing them with digital tools and systems that enable them to input data, output data and make decisions in as near to real-time as possible.
- Develop the digital/mobile capabilities of social workers to better support their work with Adults and Young People ensuring they can get more timely access to the information they need to make quicker faster decisions.
- Through the HeadStart programme develop the digital capabilities of the practitioners to harness digital technologies to support their work with young people and create greater resilience across Blackpool's young people.
- Further develop the Council's Business Intelligence capabilities to enable leaders, managers and employees to make more informed decisions with new knowledge and insights that were previously unavailable. Harness the power of Big Data to gain new and valuable insights.
- Increase the awareness of cyber threats and the General Data Protection Regulation (GDPR) and the role employees need to play in reducing risks with particular attention being paid to threat of nefarious and malicious emails and weak passwords.



Priorities

Digital Place

- Establish Blackpool as a Smart Resort by developing digital experiences that add value to visitors and residents when using services such as parking, public transport and ticketing.
- Continue to develop and ensure Blackpool has an enabling network infrastructure with high speed connectivity and greater access.
- Continue to build and develop the Council's own network infrastructure and public WiFi services.
- Seek to positively influence private service providers to ensure the area is well served with 4/5G wireless services and fibre broadband services supporting businesses and residents.
- Develop use of the Tramway Fibre to create a smarter promenade supporting smarter tram stops, car parking, CCTV, public WiFi.
- Build the business case to extend the tramway fibre to the Enterprise Zone to create high speed, low cost connectivity for future businesses.
- Make use of other street infrastructure to enable a smart resort.
- Continue to develop and invest in cyber defences and capabilities to protect systems and data from external and internal threat.



Priorities

Digital Collaboration

- Work closely with colleagues in Health to support the delivery of the Lancashire Digital Health Roadmap.
- Enable and facilitate interconnectivity of the Council's Social Care Systems with Lancashire Patient Records Exchange (LPRES).
- Deliver the Vanguard Social Worker Mobile enablement project.
- Support the development of a Health/Social Work digital portal to support collaboration between Health and Social Care.
- Seek to influence and shape the digital agenda across Blackpool including the Council, its companies, partners and when appropriate within and across the region.
- Participate in Big data projects that enable the development of the region, supporting smarter decision making and investment.
- Develop and build highly adaptive secure ICT infrastructure and systems that support service that want to collaborate and share services.
- Seek to support the Council companies with ICT Support services and to grow new business opportunities with other public sector organisations to support the sustainability of the ICT Function.
- Work closely with other Authorities in the region to support digital developments including our neighbour authorities, wider Lancashire and AGMA.

