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LEARNING AND SKILLS AT WORK
2020

Transforming learning: examples of organisational approaches

Case studies
June 2020

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Case studies

Learning and skills at work 2020

Transforming learning: examples of organisational approaches

Contents

① Introduction

The case study organisations face very different contexts and challenges, and are at different phases and stages in their approaches, but what they all have in common is that they are on a journey to transform learning in their organisations.

The organisational examples of practice set out in this collection of case studies, to complement the _Learning and Skills at Work 2020_ report, cover a diverse range of sectors, including utilities, energy, banking, insurance and defence. While each organisation operates within a unique context, they face similar challenges, including the need to respond to an increasingly complex, uncertain and volatile world. They have all invested significantly in learning and have achieved outcomes. While it should be recognised that they are all at different stages, a number of themes emerge from the case study interviews that bring to life some of the report's findings

A shift towards just-in-time and in-the-flow-of-work learning, not delay
Where the course was once the default go-to learning approach, learning must now be delivered in the flow of work, not just in a venue. In response to rapid growth, Vitality shifted how, when, and where they deliver learning. Working alongside the business to break down exactly what people need to know, and what they need to do, they then develop and strategically place the resources and tools individuals need to carry out the roles effectively, just in time and in the flow of work. The RAF are looking to shift from a one-size-fits-all training model to personalised training, on-the-job and just-enough, and just-in-time, learning. Scottish Water's internal subject-matter experts provide on-the-job observation, instruction and mentoring to employees during the course of their work.

Embracing just in time and in the flow of work are contained within the L&D area of specialist knowledge within our new Profession Map.

Digital and mobile learning, not just face-to-face
The case study organisations are moving away from traditional delivery models, embracing emerging technologies to support learning and collaboration. NatWest Group has developed an online learning offer to support employees to develop the critical people capabilities they have identified, which provides a mix of engaging curated and created content. Their approach leverages emerging technological solutions to support learning; for example, they have helped employees build their critical thinking skills through a virtual reality game. The RAF has embarked on a 20-year journey to transform the way it trains its personnel, shifting from predominantly face-to-face and residential delivery to an approach that embraces distributed and distance learning and the use of cutting-edge technology. Shell has developed a range of learning resources, which vary from internally developed micro learning and market-standard online offerings, to internally developed hackathons, immersive experiences and programmes.

Embracing the balance of digital learning solutions is one of the aspects of the specialist knowledge area of our new Profession Map.

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Building future capabilities across the workforce

In the face of technological change, automation and a volatile and uncertain future, organisations are focusing on building the future capabilities all employees will need. Using a robust evidence-based approach to identify critical people capabilities, NatWest Group is focusing on building the core transferable skills employees will need for future careers, either inside the bank or elsewhere, embedding them in all their people management processes and throughout the employee lifecycle. Shell is focusing on building digital capabilities across its whole workforce, from digital starters to digital specialists, and has put in place the tools managers and leaders need to support the digitalisation journey.

Identifying, developing and defining current and future capability is a core element of the L&D specialist knowledge area of our new Profession Map.

Accessing internal talent pools to support learning and skills

Using internal subject-matter experts, with deep technical knowledge, can help identify, target and address skills gaps, build workforce capability, and support internal knowledge flows. Scottish Water has adopted this approach through its Skills Academy, seconding their most experienced operations staff into their academies and providing them with the skills to identify training needs, design interventions and deliver them effectively. Shell has created communities of practice to raise the visibility of subject-matter experts and support innovation and knowledge flows. Vitality, on the other hand, has bolstered the skills of its learning function through tapping into internal front-line talent pools.

Identifying talent within organisations has its own section within our new Profession Map.

② Vitality – Resource-led learning

Background

Vitality offers a comprehensive and award-winning health and life cover and positively different investments to their members, underpinned by a core purpose of making people healthier and to enhance and protect their lives. Vitality believes in the idea of 'shared value', a unique approach to insurance based on the scientifically proven principles of behavioural economics. A subsidiary of Discovery, which is a leading global insurer, Vitality has three UK businesses: Vitality Health, Vitality Life and Vitality Invest. The Vitality business model is grounded in behavioural economics, and is designed to incentivise people to take a more active role in managing their own wellness, which can encourage the development of healthy long-term habits that are good for them, good for the business and good for society.

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Operational context and challenges

Vitality has experienced a period of significant growth in the UK, with headcount alone increasing by more than 40% amongst front-line staff over the last four years. They have also significantly expanded the number of partners they work with and added a whole new range of market-leading life, health and investment products.

Rapid growth, product innovation, partner introduction and headcount increases bring a number of challenges.

With 40 partner organisations and growing, this means that not only do they need to ensure employees are up to speed with their own products and systems, but they also need to keep pace with any changes their partner organisations introduce. For instance, they incentivise physical activity via Apple watches. The business prepares for, and reacts to, new versions and updates from Apple, working smartly and efficiently to make sure employees are kept fully informed of the changes, ready to take calls from members and customers as soon as the update is released.

At Vitality, everything happens at pace and innovation is considered a constant. With approximately 100 projects happening per year, the turnaround time from development to reality can be rapid, and Vitality will be perfecting and tweaking things right up until launch to make sure that the product or partnership is just right for their members. In order to facilitate this constant innovation, the L&D team have also had to engineer unique learning solutions. The typical turnaround time for a project is seven days: this isn't just the time allowed for designing a learning solution, but includes delivering it to over 900 front-line employees and evaluating it. To overcome these challenges, the team had to radically rethink how learning was delivered.

> *'It came to a point where traditional learning methods were not keeping up given the pace of change that we all wanted to deliver.'*

> *'You have seven days. Learning is not a singular event; it's got to be paced, spaced and high frequency; it's got to nudge people to learn continuously and, most importantly, it's got to yield the results. Just because you are fast, it doesn't mean you can lower your standards.'*

The response – learning, it's in the build!

> *'Training people isn't the goal; it never was. You could make the argument that the very best L&D department in the world is the one that never trains people; it just puts the learning resources in places that are so ergonomic that learning happens instantly and while people are doing their job.'*

To respond to these challenges, in 2017/18 they began to explore a resource-led approach to learning, an approach which became formalised last year.

The complexity of the human body and the thousands of potential conditions means that many of Vitality's products need to be quite complex to deal with this. It would be impossible to train everyone on all of these. Instead, whenever a new project is taking off, the learning team works alongside the project leads to make the employee learning

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experience as intuitive as possible. If it is knowledge- or concept-heavy, they build the resources employees need to be able to carry out the task. For instance, instead of training everyone on a myriad of health conditions, when someone with a complicated health condition contacts us, our front-line staff are never more than two clicks away from a summary of what that condition is and how it can be treated.

To ensure that the right information is in the right place at the right time, the team spend a lot of time before a launch with people in a controlled environment to see where they look for information during the course of a call. This then provides the team with what they need to strategically place resources in those areas to ensure that employees have the tools in place to be able to carry out their job effectively. The L&D team will always make provisions, about two or three weeks after, for a follow-up learning event.

'You prepare for the change, you practise it, you perform, you correct it and you then perfect it. That's about addressing some of the residual things that we aren't getting right, and there has to be a broad assumption that we are not a perfect L&D function. We are human, we are fallible and we are going to get stuff wrong, but with error comes learning and improvement and we start to build something better.'

Outcomes achieved

The L&D team at Vitality spent a lot of time on their evaluation model – using Kirkpatrick and Bersin as the basis – before they started because they wanted to know whether they were achieving the behavioural change they were seeking. Evaluation measures include:

- Employee feedback two weeks after launch on whether they have been given the tools they need to do their job. This informs the preparedness and the content of any further solutions required.
- Analysing click rates on strategically placed resources, how often have they been used and for how long, how long do people need to scroll to get the information they need.
- Manager feedback, on-the-job observation, call monitoring, analysis of automated quality control systems, call handling times and real-time customer verbatim feedback.

The L&D team report on three key metrics: the average number of projects a single person in the learning team can deliver; the average number of training minutes per intervention, which they want to see fall; and whether employees agree that they have been given the tools and learning they need to do their jobs effectively. Through implementing these measures, they have achieved a significant step-change:

- They have seen a 300% increase in the number of projects each of their L&D team members can deliver.
- The average number of training minutes is down by 17%.
- Two-week post-course review figures have gone up 15%. This means that 96% of people retrospectively felt that they had all of the tools they needed to do their job.
- The team are able to prepare people better using fewer training hours. In short, they achieve more in less time.

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Key takeaways

- **Be your own biggest critic:** *'We were our own best case study for making it difficult for learners, sitting people down in a classroom and teaching people about underwriting for days on end just doesn't make sense.'*

- **Look internally for the skills you need in your L&D team:** Eighty per cent of their L&D team came from within. *'It's amazing the talent you can find in a front-line role; it's such a big pool to fish in. Fifty-four per cent of our customer service staff have degrees.'*

- **Don't get put off thinking you need to revolutionise L&D:** Just make one change at a time, as incrementally it all adds up. And remember, *'nobody knows your business better than you. There is every likelihood you already know some of the changes you've got to make, and they might be counterintuitive, but it's okay to go against traditional thinking.'*

- **For inspiration sometimes it is equally important to look back:** *'Resource-led learning has been around for over 50 years. Sometimes it's not just about trying something new. Maybe the inspiration has already happened, but it just wasn't the right time and there wasn't the right technology to support it.'*

③ NatWest Group – Building capability across the workforce

Background

NatWest Group (NWG) provides banking and other financial products and services to over 19 million personal, commercial and business customers, predominantly based in the UK and Republic of Ireland. It currently employs around 65,000 people across a wide range of roles: from front-line customer staff in branches and call centres, to technology, HR, strategy and relationship managers supporting business customers.

Operational context and challenges

The world of work is rapidly changing, driven by advances in technology alongside wider societal and economic trends. In the fast-changing world it's increasingly difficult to predict with any level of certainty the jobs of the future. Instead, employers are recognising the need to support colleagues to build the broad core and transferable behaviours and skills they need to prepare for an uncertain and volatile future, to navigate more complex career paths and to be able to adapt as they reskill or upskill in response to these changes.

In light of these challenges, NWG embarked on a four-phase journey to transform the way in which it builds future capability across its workforce.

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Through their work to create an organisation-wide learning strategy, NWG wanted to push the boundaries and be really future-focused and identify the critical capabilities that would support their colleagues to remain relevant and employable, be that for a career within or outside the organisation.

'Capabilities are the things that are highly transferable. They are not specific to any one job, but set you up for success for many roles, helping you be more mobile and agile for the future. This is critical given the shelf life for technical skills is getting shorter and shorter.'

The response – orientating towards future capability

The first phase, in 2016, was to carry out a robust evidence-based review, drawing on behavioural science, extensive academic literature, and external research to identify the critical people capabilities all employees will need for the future. The 5 Critical People Capabilities (CPCs) are focused around: innovation; dealing with change; thinking critically; collaboration; and being a trusted adviser.

NWG then worked to secure executive committee buy-in, upskill HR and leaders in the capabilities and embed them in their strategic workforce planning processes. Following this, they focused on raising awareness and engaging employees to orient them towards the future and focus their development in line with these capabilities. Last year the bank started a phased approach to embedding the capabilities across their employee lifecycle, through internal communication and engagement, and using a new capability framework as the anchor for recruitment and assessment, and the 'how' of performance management.

The Capability Checker, Festival of Learning and Learning Academy

To raise awareness and engage employees in the capabilities, NWG introduced a capability self-assessment in 2018, which since launch has been completed over 52,000 times. The tool enables colleagues to understand their strengths and development gaps and supports them to align their learning and build capability against their career plans.

The results of the tool are anonymous, but colleagues are encouraged to discuss their report with their line managers. Managers can request an overall summary report for their business area that identifies development needs at a high level and aligns learning for their team as a whole, supported by suggested team activities.

To further develop and embed the capabilities, in 2019, NWG ran a bank-wide 'Festival of Learning', using the latest technologies to connect a distributed colleague audience to internal and external learning opportunities all aligned to the CPCs. Live and on-demand content was accessed over 23,000 times, providing colleagues with experiences to develop their capabilities in creative and innovative ways.

In the first half of 2020, NWG have launched a new Learning Academy, which provides easy access to the best learning in one central place, including a suite of online resources aligned to the 5 Critical People Capabilities. Employees are able to select items that fit their learning style and how much time they currently have to learn, and are offered a mix of curated and created content to develop their skills and behaviours. This includes introductory guides and videos explaining the capabilities, learning toolkits, team activities, discussion points for development conversations with line managers, as well as innovative virtual reality games. The team are also developing a 'day in the life series' to bring the CPCs to life in an engaging way for a range of roles across the bank.

The embedding journey continues through communication and subtle behavioural nudges, as well as a continuous cycle of research and benchmarking to ensure that the capabilities remain up to date.

Key takeaways

- **Take an evidence-based behavioural science approach.** NWG's learning strategy drew on extensive academic research in the area of learning and training and also future of work trends, plus an understanding of behavioural science in terms of how best to communicate key messages and encourage engagement with collateral.

- **Create a learning environment.** *'Building capability doesn't happen in a vacuum. You need to create the environment for employees to succeed. It's about giving freedom to individuals to do the right thing and allow people to make decisions. The cultural shift is critical.'*

- **Leverage technology to support learning.** NWG has harnessed innovative technological solutions to engage employees, support them to develop their skills, and to provide a personalised learning offer.

- **Build internal L&D capability to deliver.** To build internal L&D capability, NWG established communities of practice to provide opportunities to learn from each other, share knowledge and apply learnings.

4 Scottish Water – Harnessing internal subject-matter experts

Background

Scottish Water is Scotland's publicly owned water provider, responsible for providing water and waste water services to household customers and wholesale licensed providers. They employ around 4,200 people, with just under 2,400 employed supporting operations (engineers, technicians, maintenance operators), and the remainder employed in areas such as strategic customer service planning team (including asset management, strategic planning, and design assurance) and enabling functions such as people, finance, digital and corporate affairs.

Operational context and challenges

Scottish Water faces a number of strategic challenges, some of which are listed below and all of which have skills and learning implications:

- the climate crisis, which will have an impact on all the services they provide, including the quality of source water, as well as dealing with extremes of flooding and drought
- the management of ageing assets – many of the water, waste water treatment and pipe networks were built over 50 years ago, increasing the need to invest as well as deal with failures
- reducing carbon emissions – Scottish Water have committed to reach net zero emissions by 2045.

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One of the biggest challenges for skills is working to ensure that they have both the technical and specialist skills they need now and in the future, the scientists, technicians and engineers, as well as creating the adaptive capacity to respond to changes in the environment. A key element of this is developing employees who are equipped with the skills to learn and to adapt to change.

To develop the next generation, and build capability for the future, Scottish Water has developed an integrated strategy to harness the skills of their experienced employees to support the retention and transfer of experience, skills and knowledge.

Retaining and transferring the skills and knowledge is particularly important for the utilities sector, as estimates suggest that up to 20% of the sector's workforce is likely to retire within the next decade.

The response – Scottish Water Skills Academy
Scottish Water launched their skills academies in 2015 with the aim to ensure that knowledge, skills and experience are retained within Scottish Water when the workforce retires, to improve productivity by reducing human error, and to attract and support the development of the next generation.

The model originally involved recruiting experienced employees from front-line operation roles and seconding them into the learning faculties in Scottish Water's skills academies. Seconded employees were then given the skills to identify training needs, design interventions and deliver them effectively. Since this early start, their academies have developed to include new faculties with employees moving into substantive roles in learning and development.

One of the driving forces behind setting up the Skills Academy was how to improve overall productivity by reducing human error and failure in the system, through harnessing the skills of the most experienced front-line operational employees. For example, part of the faculties have been set up to identify where human beings interact with the systems and process and potentially cause a problem through their behaviour, and are then geared up to respond by providing targeted training to minimise the impact on the network. Over time this approach has meant that Scottish Water has achieved incremental improvements in productivity and service delivery to customers. In the first two years of their Water Distribution Academy, the number of burst pipes was significantly reduced, with interruptions to customer water supplies reducing from 8,914 (2014–2015) down to 4,807 (2016–2017), with training solutions delivered via their academies being viewed as a significant contributory factor in these reductions. These results laid the foundations for the academy model to be expanded into new faculty areas.

Challenges and lessons
One of the enduring challenges identified is how to attract the most experienced staff out of operations, as Paul Campbell, Scottish Water's Head of Learning and Organisational Development, alludes to:

'It's probably been one of the most significant challenges. People don't want to let go of their best people, so it's a Catch-22. These are people who have the experience to upskill and pass on knowledge, but trying to get them out of the business when they are relied upon to deliver service to customers is a big challenge.'

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Scottish Water

Having a supportive learning culture and senior-level buy-in has helped, and leaders have bought into the concept and have seen the positive impact that the Academy brings. They have also tried different approaches from secondments in the first instance, including temporary trials. However, organisations seeking to adopt a similar approach should recognise that this is always likely to remain a challenge:

'and there is still a strong pull back into the front line if challenges arise within the operating environment.'

Another challenge identified is managing the role transition for front-line operatives. This goes beyond skilling your front-line staff on how to identify skills needs and design and deliver learning interventions; you also need to make sure you address other skills gaps that may emerge.

In the case of Scottish Water, this was about addressing digital skills gaps, by building their confidence in using technology, but also supporting them through coaching and mentoring from academy managers, with the shift to a much more independent and autonomous role:

'When people come into the Academy you are asking them to become much more independent, to plan and schedule their own work, to liaise with stakeholders in the business, and have conversations with senior leaders. That can be a big shift.'

Key takeaways

- **Harness internal subject-matter experts to address skills gaps and challenges:** Scottish Water have developed an innovative approach to harnessing the deep technical knowledge and skills of their most experienced employees to build the capabilities of their workforce.

- **Pilot approaches to develop the evidence base:** Scottish Water benefited from a strong internal learning culture to achieve senior-level buy-in. Organisations seeking to develop a similar approach should consider first piloting an approach to build the evidence base to achieve buy-in.

- **Review the transition between roles and provide support to address knowledge and skill gaps:** One of the key takeaways is that if you want to use your subject-matter experts to support knowledge transfer and training, it's important to not only provide them with tools to carry this out effectively, but also to consider the wider changes to their role and make sure the support is in place to address any gaps.

⑤ Royal Air Force – Building the next generation

Background

The Royal Air Force's (RAF) primary role is to deliver the air and space defence tasks of the UK as well as supporting the UK authorities, as it has during the recent COVID-19 pandemic. The workforce covers a wide range of roles, ranging from pilots, aircraft technicians, engineering officers, and air traffic controllers to medical and nursing personnel. It comprises over 31,000 regular serving personnel and over 3,000 reserve personnel.

Operational context and challenges

'Fourth Industrial Revolution, rapidly changing geostrategic context, new domains of cyber and space and demands of a new generation mean we must adapt at pace, in depth and across our service.'

The RAF's operational context is increasingly complex and challenging. In addition to deterring, responding and meeting well-publicised threats from state and non-state actors, it also has to deal with emerging threats in the cyber, information and space domains. The Ministry of Defence has described 'a more dangerous world' in which the threats to the UK are evolving rapidly. Across Defence, the UK was involved in 25 operations worldwide in 2016–17, with the RAF undertaking more missions than it has for 25 years.

Alongside this, and since 2008, the public sector has also experienced a period of constrained finances, which has increased the need to find greater efficiencies, find new ways of working, and exploit the information age.

The RAF's training operation is huge, delivering 1 million training days per year. In their training arm, around 3,000 personnel, primarily from the RAF but also including Army and Navy personnel, are supported by 1,500 civil servants and 3,500 contractors. They invest heavily in their people; for instance, it takes millions of pounds and on average five years to train a front-line fast-jet pilot, while aircraft engineers receive 14 months of professional training and all personnel undergo through-life training to develop their professional competencies and leadership and management skills.

The response

To prepare for the future, the RAF is undertaking a major transformation plan called Astra, which kicked off towards the end of 2019 and aims to better harness the RAF's personnel, prepare them for new technologies and to counter multi-domain threats, and maximise their resilience, flexibility, and effectiveness. The focus on training is intended to harness the collective efforts of the RAF, the wider education sector and the private sector to transform its training capability, technology and methodology. Ultimately, the RAF needs to get its people to the front line quicker, more intelligently and better prepared to do their jobs. Put simply, *'less training – better and quicker'*.

One of the major challenges is an over-reliance on outdated and inefficient models of training delivery. In particular, the large proportion of training (70%) is delivered in blocks, residentially, at training schools, which represents a significant cost burden and fails to recognise that people learn at different speeds and in different ways. The aim is to reduce residential training to 10% by 2040 using a combination of:

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- replacing outdated training systems with greater use of distributed or distance learning that is self-paced, competency-based and independently assured
- recognising previous experience, either military training or relevant civilian experience and qualifications
- focusing on a culture of intelligent training design that develops skills and behaviours needed for the future
- embracing the use of cutting-edge and integrated technology across all training, with an emphasis on synthetics, digitisation and intelligent data analysis
- investing in training staff and creating a system that cultivates a unified approach to training priorities, investment and innovation
- aligning military training with corresponding civilian professional standards, while seeking more opportunities for military and civilian personnel to train and learn together in shared training environments
- delivering a more integrated and intelligent initial training experience through the development of a single gateway to the RAF at Cranwell, rather than the separate training journeys common today.

The current approach to training is one size fits all – everyone is put through the same block of training regardless of previous experience, whether gained in the military or as a civilian. The aim is to shift towards a more personalised learning journey, with a focus on modular and on-the-job learning and 'training just in time rather than just in case'.

'We are still dependent on outdated and inefficient residential training. We don't take into account some need less, are maybe pre-qualified … we fix them for that period and we do it away from where they work, which increases time away from work and adds a large cost.'

Despite the size of its training task, the RAF does not have an overall holistic view on who has received which training and who has which skills, because data is held in different IT silos. To tackle this the RAF is building its data analytical capacity, which can capture learning journeys. They are also looking at ways to better harness new technology to support learning. For example, if they shift towards increased use of virtual reality for pilot training, they estimate that they could cut training time in half and halve the cost. VR pilot training means you can train all the time and that training sorties are not constrained by weather, access to equipment, or instructor availability. VR is primarily used for pilot training, but the aim is to extend this more broadly to the ground training environment.

'The RAF is building on the legacy of over a hundred years of service, from the bravery of the Battle of Britain to the technological innovations of the twenty-first century. The RAF always has been at the cutting edge of global air and space capability, and now more than ever those limits are being tested. Fighting a cyber-security attack from a laptop is a lifetime away from flying a Spitfire over the English Channel, but the same boldness of spirit and ambition to protect our skies continues to drive the RAF and its training transformation journey.'

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Key takeaways

While the RAF is just six months into a 20-year programme, there are a number of key learning points from the work undertaken so far:

- **Recognise the extent of the challenge:** *'Don't underestimate the challenge in finding the resource head room to think strategically, and drive a twenty-first-century training offer, while continuing the business-as-usual delivery of 1 million training days.'*

- **Invest up front in your L&D team** to ensure that they have necessary skills to support the strategy.

- **Tackling traditional thinking:** Prepare for a level of inertia, people tend to do what they know and are comfortable with; recognising and addressing this will be critical if you are to create the shift you are looking for.

- **Not reverting back to old ways of doing things:** The COVID-19 pandemic has dramatically shifted the context and resulted in an acceleration of new ways of training. There is a much greater imperative to drive online approaches, and the challenge afterwards will be about not reverting back to previous ways of training. For example, they are building an online course to deliver their mandatory once-a-year D&I training, which previously was primarily delivered face to face.

⑥ Shell – Building the digital capabilities of the whole workforce

Background

Shell is an international energy company with expertise in the exploration, production, refining and marketing of oil and natural gas, and the manufacturing and marketing of chemicals. They are one of the world's largest independent energy companies, operating in more than 70 countries and employing around 82,000 people worldwide. In the UK Shell employs around 6,000 people across a range of activities. They provide around 10% of the UK's oil and gas and serve more than 5 million customers each week at their service stations.

Operational context and challenges

Digital technologies are transforming our lives in ways that were unimaginable even a decade ago. Digitalisation is also transforming the energy industry, by improving efficiency and safety, and by facilitating the use of renewable energy. Shell's strategy is to be a leading player in both digitalisation and the transition to lower-carbon energy. They believe digitalisation will enable billions in incremental value-creation over the coming years.

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Shell is a pioneer in the development and deployment of many digital technologies. Today, they use advanced IT infrastructure and partner with some of the world's leading cloud providers, allowing them to use technologies such as artificial intelligence, robotics, the internet of things and blockchain in innovative ways. But digitalisation is about more than technology. The key to unlock digital transformation is cultural change and is about the people who will enable the transformation and value-creation over the coming years.

Shell developed a digital programme that stretches right across the businesses. Today, Shell's Digital Centre of Excellence has over 280 digital initiatives in progress covering all the major businesses – from exploration to new energies. The core team consists of a group of 350 people spread in four hubs across the globe. They developed a culture that is conducive to data science projects.

Building in-house capabilities is a core principle within Shell's Digital Strategy. Shell developed a learning programme to build digital capabilities at scale and speed – keeping just ahead of the pace at which the business is transforming and in need of these capabilities.

The response
One of the challenges with digitalisation is its diverse reach. Digitalisation can mean many things to many people – it was important to start with agreeing on a common understanding and language. A five-layer framework formed the core of Shell's digital capability-building strategy, ensuring that capabilities were built at all levels. Alongside this, four learning personas were defined.

The four personas
Digital Starter: Everybody within Shell is provided introductory learning content to increase their understanding of the key concepts of digitalisation. Being digitally literate helps colleagues to live, learn and work in a world where data and new technologies are evolving faster than ever.

Digital Generalist: Colleagues across the business or technical function (typically with a non-digital background). Digitalisation is becoming an increasingly important part of their role and they need to know more. Typical roles include digital lead, business translator, citizen data scientist, citizen developer.

Digital Specialist: Colleagues in a core digital role, for example data scientist, data engineer, developer, designer, agile coach or scrum master. They need to deepen their expertise in their field and keep up with the latest digital advancements.

Leader: Business or function leader driving value-creation through digitalisation.

Digital Skills@Shell provides a portal for all Shell staff to sharpen their knowledge and fulfil learning needs in digitalisation. This one-stop source allows staff to follow the ongoing campaigns, leverage the direct access to multiple resources in the digital curriculum and engage with experts in communities. The personas allow learners to easily navigate through the content that is curated for them.

Learning resources vary from internally developed micro learning (for example learning nuggets, animations, factsheets), to market standard online offerings, to internally developed hackathons, immersive experiences and programmes built on top of massive open online courses (macro learning).

Examples of products developed include:

- **Digital Starter:** A digital literacy campaign, rolled out in 2019, to build awareness across the organisation and ensure that every employee understands how digitalisation will play a role in their future career, and what skills will be most relevant in the near future. Since launch, the campaign has reached around 25,000 Shell staff globally.
- **Digital Specialist/Generalists:** The Shell.ai Development Program builds technical digital skills in Shell at scale and speed. Shell partnered with Udacity to build data science, machine learning and AI technical skills in-house.[1] The training is voluntary and employees can complete it at their own pace during work hours. The programme offers off-the-shelf specialised 'nanodegrees' and Shell-customised 'nano tracks'. Throughout the programme, students are supported by a Shell Nano Coach, who is an expert in the field and brings the cohort together for a collaborative learning experience and to put the learnings in the Shell context.
- **Leaders** are supported by a Digitalisation Toolkit, a resource for leaders as they progress on their digital journey. It includes resources for their own development and engagement materials to support teams to strategise. Additionally, Shell created a Digital Journey for Leadership Teams, a step-by-step organisational development supported journey that takes leadership teams from early assessment and awareness to fully integrating digital initiatives in their overall change agenda.

To help people learn with, and from, each other, focus has been given to build and strengthen relevant communities. Communities are openly accessible to all Shell staff and increase accessibility of subject-matter experts. These communities foster innovation, inspiration and knowledge-sharing. They make digital opportunities more tangible by showcasing the created value enabled through digital technology. These digital communities have approximately 15,000 members.

What they achieved
Success for Shell is about learners making an impact in their role by delivering value for their team and organisation, but it's also about creating an employee value proposition that attracts people to work on projects supporting Shell's Digital Strategy. A business impact assessment and learner survey of the Shell.ai Development Program showed the following outcomes:

- Increased speed of project delivery: improved skills enabled learners to deliver digital projects faster.
- Quality of project increased due to better decision-making.
- Reduced third-party spend: reduced outsourcing to a third-party consultancy/hire contractor.
- Grow internal capabilities: 98% reported learning a new skill or enhanced an existing skill. Line managers felt that learners were able to transfer skills to the rest of the team.
- Connecting people with people: learners felt that their network increased, and they were able to transfer learnings across teams.
- Increase in employee satisfaction: 72% (strongly) agreed that completing a nanodegree increased their job satisfaction. Learners felt that taking a nanodegree is an investment in their career.

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[1] Royal Dutch Shell reskills workers in artificial intelligence as part of huge energy transition. *CNBC*. 2 April 2020;
Shell aims to enrol thousands in online artificial intelligence training. *Wall Street Journal.* 13 February 2020.

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Key takeaways

- **Agree a common framework.** Digital can mean many different things to different people.

- **Think about the needs of the whole workforce.** The diverse reach of digitalisation means that it affects all employees. Adopt an approach that uses personas and differentiate the content and user experience.

- **Focus on upskilling digital generalists.** They will act as ambassadors for further capability-building in the business.

- **Build communities of practice** to help people learn from each other, grow their networks, foster innovation, and to celebrate success.

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