ufi VocTech Trust

VocTech

2021

VocTech Directory

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VocTech Seed

VocTech Seed is our test bed where the first spark of an idea can be scoped and tested in the supportive environment that Ufi funding provides.

We fund projects that are at a relatively early stage, helping to prototype ideas and work out the next steps necessary on the journey to long-term success. We encourage ideas which have the potential to transform how vocational learning happens, rooted in a real-world understanding of the problems, issues and opportunities in the vocational sector.

Projects need to show us how the idea is novel – show us that they understand the market they are looking at and why this is better than anything that has been thought of before. We can support ideas for new tech, new markets, new communities of learners and we're happy to welcome new project teams. The emphasis here is on the 'new'. We're okay with risk. This is about sharing that risk and putting in place all the support we can to mitigate those risks we can manage together.

VocTech Seed provides grants of between £15,000 and £50,000 for projects lasting from three to 12 months.

2019

C.O.P.S

TalkOut VR

Gwent Police were looking for a more interactive and engaging way to train new and current staff taking over from the current use of passive video. Enter the COPS.

This new development product, Computer Operated Police Simulator (C.O.P.S), will be used to augment technical and non-technical skills for the UK Police. This project will build and trial a virtual learning platform delivering training in a CAVE (Computer Assisted Virtual Environment). Users will be dropped into various scenarios and allowed to choose different paths as a way to address incidents as they occur in the simulation.

A combination of fixed and random scenarios will be created to deliver specific learning objectives. Simulation has been demonstrated to develop situational awareness and decision making with increased knowledge retention, enabling behavioural change. Simulations in this project will combine the use of CAVEs and Virtual Reality headsets to ensure that users become fully immersed whilst undertaking specific activities.

The prototype platform will be piloted with Gwent Police, combining the company's expertise in creating engaging 3D virtual learning tools with Gwent's knowledge of the learning required for its force.

The project was extended as part of VocTech Now to include additional content to train people to use appropriate PPE for different situations.

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Spotless

Solutions 42

Infection outbreaks are like fires, they don't happen frequently but when they do, the situation is an emergency. They require dealing with promptly and effectively, to prevent catastrophic outcomes of avoidable deaths.

Emergencies like these require practicing actions and developing the skills necessary for containment before the situation arises. This is what project 'Spotless' aims to do.

The 'Spotless' project intends to use scenario-based e-learning, contextualised to the learner's environment (in this instance a care home) instead of just producing compliance e-learning. The learner will find themselves having to immediately decide how they are going to manage the hygienic care of a resident and the surrounding environment, when that resident has vomited in a communal dining area (catchily titled Doris throws up).

Not only will this engage the learners mentally but also collaboratively, as they will begin to consider their local policies, systems and processes as well as the part they play in the outcome and within the team.
The learner can choose as they are going through the scenes at what point they wish to access additional learning resources such as video tutorials, job aids, reference links and other guides.

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Wildlife Skills Delivered by Remote Vocational Training

Wild Skills

How do you learn the skills needed to work professionally with wildlife ? And how can digital learning make the process better?

Wildlife skills is a nature conservation vocational skills training package, delivered remotely into a learner's own environment. Through the loan of wildlife survey equipment, supported by access to enriched online training materials and live training broadcasts, learners can take the time needed to gain competence in specialist professional skills. Those might involve safely catching and monitoring specific species or tracking wildlife in its natural habitat.

This blended approach means that learners can practice and demonstrate their new skills remotely with expert online support. Their experience is enhanced by contributing data to citizen science networks and uploading examples of their work to an online platform to increase community knowledge and share experiences with other learners.

It is planned for this to lead them to quality assured recognition linked to endorsements from employers and professional bodies, either as ongoing CPD for those in the profession or as a way of demonstrating competence for employability.

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The Open Networking Lab Accessibility Project

The Open University

There is an urgent need to enable blind and visually impaired people to gain better access to the job market. Nationally, there are over 2 million people with sight loss, with 360,000 registered as blind or partially sighted. Approximately 25% of those with partial sight loss are employed, but this decreases to 10% for those who are blind. This project will allow visually impaired learners to acquire basic computer networking skills through the use of accessible network simulation software.

To achieve this the project will build upon and extend an established network simulation tool to offer an accessible interface for conducting network simulations, tailored to the needs of this community of learners.

The project is a collaboration between the Royal National College for the Blind (RNC), members of the vision impaired and broader disability community, and accessibility specialists at The Open University (OU) to identify user requirements and test the new developments.

It is hoped that the use of innovative tech will level the playing field for people with special educational needs and disabilities – identifying the technology that best suits individual needs.

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Citizen Literacy App

City of Glasgow College

Improving adult literacy has been a challenge for many years. The first UK phonics-based adult literacy course, developed and operated by City of Glasgow College, has been changing lives across the city and West of Scotland. This project builds upon that success to create a free smart phone app to deliver literacy training in a creative way using smart technology.

The app will feature interactive multimedia gameplay, with handwriting and voice recognition to facilitate user data entry to complete exercises, containing links to local adult literacy training providers.

It can be used to support the delivery of face-to-face phonics-based literacy courses or be used in standalone mode to allow learners to develop at their own pace, overcoming the considerable social stigma that can be attached to low literacy levels.

The main technical component of Citizens Literacy will comprise the development of a smart phone app (iOS & Android) that can be used with or without a user account (to store progress and personalisation). User-generated data can be stored locally or in a cloud database associated with an account. App content will be created appropriate for mobile use to keep user costs down.

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Gamification In Construction

The Manchester College

Getting access to a live, working construction site for a group of students can take considerable time and planning for construction departments. As a result, students can't spend as much time experiencing the real world of construction as trainers would like.

This gamification product aimed at construction learners will engross the most difficult to engage learners, developing their digital and transferable employability skills through tasks and activities set within a real world of work virtual environment.

This project software bridges the gap between education and the real world of construction, giving students the opportunity to fully explore the environment, tools, materials, machinery and building techniques of a virtual construction site.

Through increasingly challenging tasks learners will build increasingly complex structures, from simple single storey buildings (a shed or a bungalow) to super structures. They will be able to realise their constructions through the effective application of skills, such as creative thinking and problem-solving.

Through a range of platforms learners will be able to access the application at home, in college workshops, or at work through their own mobile devices and they will be able to share and develop their outcomes with their peers.

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The NYA Learning Hub

The NYA Youth Work Academy

Training opportunities for Youth Workers are currently very limited and the number of qualified people continues to fall, while the need for the specialist skills they require increases at a significant rate.

Added to this there is little opportunity for learning to underpin career progression or to enable the many fantastic volunteers working with young people to gain the skills they need to move into paid employment within the sector.

The NYA Youth Work Academy will provide a vocational learning platform and collaborative learning space for the UK Youth Work Sector. The organisation is looking more widely to see how a 'digital first' approach can change how they work.

The opportunity for social impact from this development is significant, with the increased skills of the Youth Workers rippling out into communities.

This project will combine NYA's expertise in working with young people and understanding the learning needs of those supporting them with the digital expertise of Agylia to develop the underpinning technology. It will be piloted with 100 individuals working with young people from a variety of settings.

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Tech learning for Fashion

Fashion Enter

Technology can help bring alive important skills and safety training in traditional sectors.

A major skills gap was identified by Fashion Enter for garment construction and the required technical skills to create garments to the correct client spec. The industry fails to attract newcomers and relies on imported labour mainly from the EU. There has been a net decrease of these workers into the UK and this has had a damaging effect on the revival and growth of garment manufacturing in the UK.

Fashion Flyers interactive resource, within a blended learning programme, will create a bridge for learning that can be remotely accessed. Building on an existing ABC accredited Level 1 Textiles award, parts of the complex technical units will now be embedded through interactive videos.

An interactive resource will be based on the learner understanding how to set up and use industrial sewing machines correctly and safely. Using existing machinists, the script will be developed to ensure that a wide cross section of common mistakes or unsafe practices will be videoed that can be identified by the learner. In order to identify each mistake, the learner must touch the screen at the appropriate place to answer the question correctly.

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Infinity Generator

South Devon College

How many of us asked in maths classes 'when will I ever use this in the real world' ? Well there are some vocational roles that require us to use our maths skills every single day.

Responding to this need, South Devon College is developing an interactive teaching and learning tool that hyper-contextualises maths problems related directly to vocational careers. No more theoretical problems to solve – all the solutions here are directly needed in the workplace.

For example, calculating how much paint is needed to cover a wall is a necessary skill that students have to acquire in the painting and decorating courses. Using this example, the learning tool asks questions of the learners that require the correct paint calculations for a positive result. By doing this, learners are importing their proficiency of basic maths skills such as area and coverage, but most importantly understanding why they are needed.

The training will be delivered through the development of an app to be used across a mobile web platform which will ensure maximum accessibility for the end users, including offline functionality.

The next step is to expand this project to make it more accessible to more learners on a wide variety of courses.

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AutoskillsVR

South West College

Beginner mechanics trying to learn new procedures have traditionally learned by using written manuals or by watching an experienced mechanic demonstrate the techniques needed. For many learners this is a less than ideal way to learn the sequences required before attempting the actual procedure themselves in busy, fast-moving environments.

Virtual Reality (VR) training allows for freedom from distractions as the users are totally immersed inside the headset. The theory is that the more engagement and interactivity the user experiences the quicker they pick up the skills needed.

VR also has the advantage of teaching learners potentially dangerous tasks within a simulated environment. If a player becomes overwhelmed or makes too many mistakes, they can easily take off the headset and try again. This makes VR ideal for usage within pressurised environments such as a garage.

Mechanic Matchup is an immersive training system that capitalises on these features and trains players how to conduct motor vehicle maintenance procedures in a competitive Virtual Reality game. Using the latest VR technology the system will use a game-based teaching method to train new and experienced mechanics how to conduct multiple procedures.

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Animal Care & Welfare Training

Herefordshire, Ludlow & North Shropshire College

Understanding of technical content is far more effective when presented and taught within a real-life or simulated vocational environment or setting.

The College plans to create, develop, deploy, test and share new Mixed Reality (MR) learning resources that overlay virtual objects onto the real-world environment, in a unique approach to the delivery of animal care & welfare education and training within a rural context. This enables the learner to both see and experience issues around animal care.

The mobile nature of the headsets and the ability of the holographic horse (the pilot animal) to be placed in any working space goes well beyond current teaching methods used in college at present.

The solution will use mobile digital technologies to operate effectively in a rural work and training environment. Combining these with the creation of small and highly practical MR objects for learning and assessment takes vocational training to a new level.

Hologram imagery is impressive when viewed from the HoloLens headset. The Mixed Reality Animal Care learning object experience is designed to be compelling and any representations in videos or images cannot faithfully reproduce or replicate the excellent headset experience.

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Tech for Textiles

Blackburn College

The new technologies that are emerging provide opportunities to make learning more engaging and make acquiring new skills easier. If you can see something in real time, it can often make sense much more quickly.

Blackburn College and local employers are working in partnership to develop new approaches for training skills in the Textiles industry. Through the use of cutting-edge technologies in Augmented Reality (AR) and Virtual Reality (VR), this project looks to bring core training manuals to life, that illustrate working practices and enable learners to continue developing their skills at a pace that works for them.

Having identified three key areas where skill development in this sector need to be addressed, AR and VR have been identified as possible solutions for developing an interactive learning package. Learners can immerse themselves remotely in the workplace, building their understanding and experience of their potential future job role and improving perception of the modern textile industry.

The new approaches will also enhance in-classroom learning by providing support to teachers and allowing learners to engage in more self-driven learning sessions. Building a bespoke technical solution and making learning accessible from learners' own devices will improve engagement, understanding and employability.

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2020

Neurocare KnowHow

University of Sheffield

Care workers supporting people living with long-term neurological conditions need extra skills and know-how to provide high quality, person-centred care. These conditions include Motor Neurone Disease (MND), Parkinson's, Cerebral Palsy, Huntington's, and Multiple System Atrophy (MSA) amongst others. This project will support training needs for care organisations and individual employers of personal assistants, and enable care workers to increase their knowledge base, build their confidence and competence, and support their development in a carer role.

The team will develop a novel online learning platform for carers to develop the specialist skills and knowledge they need. Designed in collaboration with carers and people living with neurological conditions, this easy-to-use resource will provide access to personalised and trusted information during a working day, 'on the go' as and when needed.

The learning tool will provide access to a range of learning resources, including short videos to share peer learning and skills; and mini podcasts to deliver 'knowledge doses'. This is not traditional e-learning - but real stories from the expert perspective of carers sharing their experiences for others to learn from.

Neurocare KnowHow is a collaboration between the University of Sheffield, Optical Jukebox, Ammba Digital Ltd and NIHR Devices for Dignity MedTech Co-operative.

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Includmi

Renaissance Management

It's a difficult challenge to care for those who aren't always able to easily articulate their own needs. The challenge is even greater, if those being cared for are children. This project will take up the opportunity to make real changes to the way this is done.

Includmi is an app that comes from working with local authorities, clinical commissioning groups (CCGs) and local health services, schools, early years settings and colleges, groups and networks of parents, carers, children and young people, voluntary and community sector (VCS) organisations and others with an interest in ensuring that there is effective local support for young people with SEND. The goal is that everyone involved in that education, health and care will benefit from quality assured, tailored and targeted vocational training so that they can better support the children and young people in their care, and communicate better with each other.

The app will embrace social media functionality to place the needs of the child or young person at the centre of their own care, health and education. Their well-being will be monitored in real time, which highlights to the team around them which interventions are having the most impact.

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Limbic

Whiley & Co

Public transport is relied on by many, including some of the most vulnerable members of society. As front-line staff, effective communication is key, not only for the efficient operation of the bus/coach network but also the health and safety of all on-board. With an estimated 114,000 bus and coach drivers operating in the UK, providing vital services across the country, finding new ways to offer effective training solutions is important to redress the balance in this commonly undervalued sector.

Limbic is an interactive soft-skills training application that can be delivered in classrooms and at home, using both traditional technology and immersive methods of delivery (VR). The project will use the latest graphics and motion capture technology, developed for use in computer games and film to digitally re-create realistic, emotive, and believable digital humans which are then used to form engaging and easily repeatable real-life scenarios.

Through Limbic's engaging approach, drivers will learn to recognise emotional states and the signs of common mental health issues. It will allow them to predict behaviours and empathise, while further learning material will provide strategies and techniques for mitigating or resolving problems.

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Lean Manufacturing Digital Toolkit

Sempai

UK Manufacturing isn't improving quickly enough to compete globally. The UK's Team Leaders are hidden in industry and are neglected skills-wise, yet they drive a big part of the solution to the UK's productivity problem. These people, the engine room of our factories, are unsung heroes facing a daily storm of problems, many of which they struggle to solve due to a knowledge gap. Sempai's vision is to transfer true lean capability to the hidden heroes in manufacturing to help them make the right things better.

This project creates an affordable, accessible solution that can be used in real-time on the shop-floor. An engaging and immersive digital learning tool upskills Team Leaders in lean manufacturing, giving adaptive content accessible on the shop-floor through an app on a tablet. The initial 2 modules, through a mix of branched microlearning, videos, photos, simulations & skills diagnostics, enable Team Leaders to "Do" as they "Learn".

Manufacturing businesses will benefit from the tangible improvements that their Team Leaders make from using the platform whilst growing more capable leaders able to progress into bigger roles - and helping to solve UK Manufacturing's Productivity Problem.

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SITE IT

NIACRO

Many prisoners have complex vocational learning challenges including poor essential skills, a lack of qualifications and little work experience. Construction is often a sector of choice to secure employment once they leave prison. SITE IT will develop and test an immersive training experience in construction Health & Safety, to be delivered in the prison environment using Virtual Reality, to prepare them for the workplace.

Learners, selected from the prison population, will move through three distinct learning zones within a virtual building site, undertaking tasks along the way, all forming units of an OCN Level 1 qualification in Health & Safety in a Construction Environment. Delivered through headsets (without internet connection), the application will capture how learners perform in the virtual tasks and a 'debrief' session with a construction trainer will form part of the learners' experience.

The Construction Industry Training Board Northern Ireland (CITBNI) will guide the development process and engage construction employers in the testing to ensure the content is 'fit for purpose' for those hoping to secure work in construction. Post-release work placements will also be offered to the learners.

SITE IT is a collaboration between the software company Sentireal, CITBNI, and NIACRO, with the support of the Northern Ireland Prison Service.

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Lean Immersive App

DAU Draexlmaier Automotive UK Ltd

The term "Lean manufacturing" is synonymous with efficient production. In practice, inefficiency or waste is anything that doesn't add value to the customer but requires an investment of time, money and talent. Idle time, underutilized talent, excess inventory, and inefficient processes are all considered waste by the Lean definition. This project empowers the British automotive manufacturing industry to create a learning culture among employees at the front-line of their operations, focusing on lean principles.

The primary focus will be the development of a functional prototype which is a user-friendly and engaging application to help novice users learn basic lean principles of waste reduction in a simulated production environment. This will allow the development team to test/demonstrate the power of the approach, understand the learners' requirements further to scale up the Application in the future.

The transformation in learning provision will allow vital industry skills to be offered to employees who have been unable to access relevant vocational training. Through this pilot project, Draexlmaier plan to be the first to demonstrate the power of digital vocational learning in Lean to the manufacturing industry to overcome training inequality. The skills training will be delivered in a manufacturing simulation app so learners naturally develop at a time and pace which suits them.

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Talent Tracker

Game Academy

Take a closer look at the skills of the future, forecast by the likes of the World Economic Forum and McKinsey, and video games fast turn into an extraordinary harbour of hidden talent. Strategy games like Civilization encourage an understanding of processes. Multiplayer online battle games like League of Legends are good at encouraging teamwork. There are many other correlations, not least between games and 'meta-skills'.

The vision of Game Academy is for the UK's 30m+ players of video games to make an invaluable contribution to the growth and productivity of our economy.

This project will create the first point of entry of game players to a service that will bring a vital new supply of technically-minded, digital-first talent to the labour market. Game players will share their gaming profiles, e.g. on Steam, Playstation and Xbox platforms. The tracker will then give insights into their skills traits, potential occupations and core motivations. It does this by looking at data such as game choices, traits, time played, achievement and tags, and processing the data with the support of Game Academy's datasets, proprietary and other databases, which will be enhanced during this project.

The Tracker integrates with a larger service that includes online skills courses and signposting to educational and employment opportunities.

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VR Soft Skills Training

BODYSWAPS

Soft skills are becoming ever more important in the workplace. Digital tech can help to offer new ways to practice those skills before young people ever set foot in a real work environment.

The project seeks to transform how vocational learning happens and help people in work, or in preparation for work, improve communication skills to progress better and faster in their career. It will do this by empowering FE Colleges and organisations employing workers coming from FE to practice their communication skills (clarity, confidence, assertiveness, emotional intelligence) by acting out, with their own voice, realistic workplace scenarios in Virtual Reality.

This soft skills simulator - powered by VR & AI – aims to improve students' employability and career progression by enabling FE Colleges and Vocational Training providers across the country to bridge the soft skills gap and complement learners' technical skills with the required soft skills, cost-effectively, remotely and at a time that suits the learner.

Working with pilot partners (Harlow College, South Essex College and Writtle University College) Bodyswaps will also design and develop a Performance Feedback App enabling trainees to save and share simulated performances, and teachers or career advisors to review and feedback on these remotely at any time.

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Marco The Writing Support App

Bridgend College

A significant proportion of post-16 learners arrive at college with a low level of literacy (L1 or lower). And after what may have been difficult experiences at school, they do not generally have much motivation to improve their own writing skills. Consequently, the work that is submitted for their vocational qualification is often poorly written and can be difficult for assessors to award higher level grades to.

The goal of the Marco project is to create a sustainable mobile platform that can provide motivation for learners to improve their spelling and grammar skills, and lead to a behavioural change by encouraging them to checking and proofread their work.

Learners will access Marco independently and use it to check the spelling, punctuation and grammar (SPAG) elements on their written work. This work can be submitted directly in the app by linking Marco to their Google Drive.

By addressing this problem, we hope to see learners will have an improved level of literacy and, in time, see that reflected in their vocational grades too. During this initial stage of building and testing, the team intends to recruit about 100 learners, building to 1000 as it approaches general release into app stores in 2021.

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The Virtual Librarian

Gower College

When learners were asked "Do you use your library resources, collections and services?" less than 10% responded "yes". And while libraries have made attempts to address these issues with traditional methods, to-date none have improved this or had the impact needed. Current methods are not in-synch with how and when students learn.

Both Gower College and the wider library community have seen that vocational, work-based and distance learners have poor engagement with library spaces, library resources, library services as well as librarians as support mentors for their course and research.
The answer to the challenge is being tested with the development of a specialised chatbot as a proof of concept with the long-term aim of it being scalable across the UK educational library sector.

The chatbot will address the issue of parity of service for students who cannot physically come into college and students who need assistance outside business hours. The chatbot will address research, study and skills needs and be available across all devices and platforms. For enquiries not being resolved by the chatbot there will be a link to the library's reception desks and/or link directly to campus libraries telephone services where learners can discuss their issues with a member of staff.

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Passport to Employment in Health Care

City of Glasgow College

As of March 2020 there was an estimated 43,000 shortfall in nurses across the UK. Some of these positions could be filled by qualified professional from overseas or qualified immigrant healthcare professionals living in the UK.

The aim of this digital vocational training course is to provide non-native English speaking healthcare professionals with engaging, flexible and high quality training which will enable them to obtain the language and skills needed to pass the mandatory Occupational English Test (OET) and start employment within the health service.

The solution will enable them to improve their spoken and listening skills in authentic scenarios in real time. This project will give learners the option to study online, utilising an innovative tools and software, to create a user journey which focuses on communication skills and maps to the learning outcomes required to pass the OET.

Building on the Ufi supported KLIK2LEARN platform, learners can study at their own pace, either using the tools and technology to guide them on the learning pathway or via a Tutor Supported option which will offer a blended approach.

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jam.academy

Into Games CIC

A 'game jam' gives a live brief to a team of participants who then collaboratively build a game in a short timeframe. They are effective ways of creating 'micro-studio' environments that can replicate many aspects of the workplace and provide a way for individuals to develop essential skills rarely taught in traditional games-related courses. These skills include communication, remote team working, self-analysis and conflict resolution. The creative nature of a game jam also makes for an engaging learning experience that is practical and easy to evaluate.

Users will complete at least one game jam lasting between 1-2 weeks. Learning design will look at what will the learner needs before, during and after the game jam, making clear it at what points support and feedback need to be offered. 20+ industry mentors will be providing remote online support to the groups via a range of 3rd party collaborative tools. The project will create guidance outlines and content for these mentors as part of the programme outcomes.

The programme is supported by a project partners from Abertay University, Access Creative College group and UK games studios Sumo Digital and Creative Assembly to develop a clear understanding of the efficacy of the remote 'game jam' learning experience and have a plan for commercialisation.

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2021

Home Achievement Academy

One Awards

Many social housing tenants are far removed from the labour market, benefit dependent and currently unable to progress towards learning and employment. One Awards are partnering with The Home Group, a UK social enterprise and housing charity with over 116,000 tenants of which 26,000 are 'supported' and relatively housebound. These 'supported' tenants find accessing standard learning provision difficult or virtually impossible. Many 'non-supported' tenants are reluctant to attend traditional settings due to barriers such as confidence and health. There are around 4 million social rented households in the UK who could eventually benefit from this type of learning.

One Awards will create an online blended learning platform where social housing tenants can access learning directly from home. The platform will host a range of short courses made available to tenants entirely online, leading to online assessment and accreditation. Video content and careers information will give exposure to unfamiliar working environments, helping to raise ambition and support personal development. An online classroom will provide engagement with other learners and support from tutors within the social housing partner to provide ongoing encouragement to the tenants.

The learning platform will help increase the confidence of tenants and support progression towards traineeships, apprenticeships and work. The online/anywhere access will allow them to take the training in a time and location that suits their needs.

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A Digital Solution for Life Critical Training in the Maritime Industry

Stream Marine Training Group Ltd

All mariners working at sea have to complete mandatory training, certified to the global STCW (Standards, Training, Certification, and Watchkeeping) level. This involves both theoretical and practical elements, which currently require travel to specialist training centres which is expensive and time consuming. This can act as barrier to entry for learners as employers may not be prepared to take people on who do not already have these qualifications. This issue affects around 600,000 learners in the UK.

Following discussions with ferry, cruise and tanker operators and manning companies, there is an opportunity to test whether the same standards required to achieve certification via practical training can be delivered via a digital tool. If successful this will open up the availability of learning by reducing costs significantly (estimated 1/5 of current costs). Learners will be able to access content and complete their studies from home or their workplace without the need to travel or visit a training facility.

The digital content will use immersive environments and e-learning courses to realistically simulate and assess the hazards that learners may encounter at sea. An AI (Artificial Intelligence) engine will pre-assess the learners' current knowledge, learning style and technology capability, and dynamically create courses that best fit their profile.

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PestSmart: Virtual Pest Management Simulator

British Pest Control Association

The UK pest control industry comprises over 1,500 sole operators/micro businesses. To be considered a pest professional, technicians must pass a knowledge-based assessment, but a written assessment on its own is not always proof of competence. Indeed, it is possible to pass the test without ever seeing rodent or insect pests in an authentic setting.

At a European level, CEPA has endorsed the need for competency-based training, but the sector has not found a way to deliver this using traditional methods. It is not practical for assessment organisations to visit large numbers of small, geographically dispersed customers. Assessments on real sites would likely result in occasions where no pests are identified, making an evaluation impossible.

This project will develop a web-hosted 3D pest infestation simulator, which will offer an assessment platform to test the competency of new and requalifying pest controllers. Learners will assess the situation, identify the pests and decide on the best course of treatment in a simulated 3D real-life environment.

BPCA are experts in the subject matter and the needs of the learners and have partnered with an e-learning agency to supply the digital (3D) content. Initially, the content will cover a small number of the most commonly encountered environments with a range of 2-3 pest issues in each. Post-pilot, the ambition is to expand the content to cover the full range of pests and environments that technicians are likely to come across.

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NextGen Skills Exchange

NextGen Skills Academy

The games, animation and VFX (visual effects) sector is booming and working at its creative heart is potentially an attractive career. But there are some complex challenges for those learning the ropes that NextGen SkillsXchange will help them overcome.

This project will develop an online, work-based platform with educational components to help build the real-world skills needed in this fast-moving environment. Using a collaborative hub, learners will tackle real project briefs in settings that replicate real workplaces. The platform will mirror what it's really like to be at work in this industry and provide feedback through bespoke video review tools. By working in groups on briefs, with each learner in a specific individual role, users will practice the relevant technical skills for each role, as well as the 'softer' skills such as communication, teamwork and organisation that are best learned in realistic contexts.

The NextGen SkillsXchange will address the increasing shortage of suitable applicants for creative roles, and, as an online learning hub, will ensure that training is available regardless of physical location. It will also help people applying for jobs to demonstrate the real-world skills needed to deliver in the creative workplace, complementing the technical skills gained through formal education.

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Bringing English & Maths to life in Hair & Beauty Industry

York College

Students of Hairdressing, Beauty Therapy and Media Make-up can find it difficult to relate to English and Maths being useful for their chosen career path. York College noticed that they were not attending these classes and had all too often been told to "follow a vocational career as they would not achieve high GCSE grades", creating the perception that vocational education does not require these skills, coupled with a fear of failure.

This project aims to overcome these barriers and, with the help of employers, to demonstrate the practical use of English and Maths using real-life scenarios. It will create a series of short, snappy media clips, including using TikTok, reflecting their learners' digital preferences. The initial phase of this project will involve around 400 Hair & Beauty learners at York College. These learners will be on a wide range of courses and will come from diverse backgrounds with differing learning abilities and needs.

Resources will be created with employer support and include interlinked industry-related activities. A catalogue will be easily accessible across levels 1-4, encouraging learner progression. Employer engagement will help to challenge the misconception of skills needed in the Hair & Beauty industry. This will help learners bridge the gap between their past experience of exam-focused English and Maths content and bring context to these subjects where they naturally occur in the workplace.

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AutonoMe In-Work Support

AutonoMe

Adults with learning disabilities have a significant need for transitional support into work. AutonoMe started as a virtual service combining human support with instructional content to help with the development of independent living skills in the home. They have developed pre-employment support, with a focus on transferable knowledge, mental health and well-being in partnership with LGA, NHS Digital and 6 local authorities. Content such as "teamwork" and "what to expect in an interview" has been created specifically for this learner group, breaking down tasks into simple, easy to follow steps that prepare them for the move to employment.

This project will further develop and test the model, extending it to stay with learners when they have secured a job. The aim is to develop content tailored to the individual, and their new role, so that learners and employers can access support for up to six months. AutonoMe will test technical and learning design approaches to providing work-based learning for people with learning disabilities, using bite sized instructional video content coupled with dynamic app features, such as notifications/alerts, to motivate learners. The app will then use the information from the user to tailor content to the individual learner to offer them bespoke support, suitable for their needs. It aims to demonstrate that virtual in-work support can reduce the amount of resource-intensive 1-2-1 support new employees with learning disabilities require and increase rates of sustained employment.

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Timber Technology Engineering & Design (Timber TED)

Edinburgh Napier University

Edinburgh Napier University Development Trust

The UK needs 345,000 new homes annually but is building less than a third of this. Offsite construction using timber could help to build 'better, faster and greener' but we need people with accredited skills in offsite timber construction, which are currently in acute short supply. The construction sector employs 3.1 million people, but qualifications don't yet match industry innovation, with many learners and professionals unaware of new technical knowledge and skills needed for the manufacturing-line approach to building.

Timber TED will provide construction students and professionals with a comprehensive suite of online flexible training modules to upskill in timber offsite construction techniques. This will be underpinned by a competency framework identifying the technical knowledge and skills needed to deliver this new construction method. The training modules will be based on 'learning by doing' activities, stimulating critical thinking and preparing the students for work.

Uniting industry, education and training resources through one course, Timber TED will support learners and employers to harness the new knowledge and skills required and to meet the increasingly stringent quality and environmental performance requirements. The final product will be a recognised, accredited qualification with a bespoke digital assessment tool, suitable for further education as well as employers delivering in-house training, enhancing existing CPD, and apprenticeships co-funded with the Housing Construction & Infrastructure Skills Gateway.

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Labredi

TIRO

TIRO

The UK's response to COVID-19 was severely hampered by the shortage of skilled Laboratory Technicians. This is not a new issue – the chronic and ongoing shortage of technicians was simply highlighted by the pandemic. The industry is seen by many to be over supplied with graduates who are unsuited to the role and soon leave, and time-served Laboratory Technicians who have limited options to gain recognition for their technical skills and knowledge.

In a survey of senior Laboratory Technicians only 11% had engaged in vocational education. The vast majority (84%) learned on the job. Tiro's proposed solution is to develop digital micro credentials in collaboration with industry, which would recognise technical lab skills and reward participants with digital badges.

The project will develop the micro-credentials with industry leading bodies such as the Pirbright Institute. These will be short, bite-sized courses that will feature cutting edge learning content, coupled with workplace tasks that model experiential in-work learning. Two types of credentials are planned: Foundations credentials to develop skills that are applicable to all laboratories e.g. quality assurance, data analysis; and Technical credentials to develop skills for specific lab environments.

An employer platform will be developed alongside, so that employers can track learner progress and identify skills gaps. Skills accreditation will be integrated into the micro-credentials. Endorsement and accreditation will be sought from relevant industry bodies.

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RARPA - The Next Generation

Wiltshire College & University Centre

It is important for all learners to have their skills and progress recognised in order to increase confidence and give them the best chance to move into work. The RARPA (Recognising and Recording Progress and Achievement) national framework, was created to record and track progress and achievement in non-accredited qualifications, but a standard digital system does not exist. Many FE Colleges and other providers have 'engineered' solutions by adapting existing tools, though this can cause problems of accessibility for student groups, the risk of unintended sharing of sensitive information and a failure to support multi-agency engagement with learners. This can create inconsistencies in recording progress and cause problems when learners move between different providers.

Wiltshire College will create a standalone platform designed to be easily accessible to learners so they can actively engage with their own progression and development. It will also help prepare them for further independent learning through the college and on to employment. Easy and secure sharing of information across multiple agencies and with various stakeholders will allow seamless updating of relevant information to all partners involved in a learner's education. The learner's completed RARPA record will ultimately become an exportable, shareable portfolio which can be used as a bridge into employment.

As well as benefiting SEN learners, the platform will also be open to all FE learners on non-accredited qualifications from 16-18 provision, NEETs and Adult Community Learning, having a broad and significant impact on a wide range of learners.

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The Justice Training Directory

The Wise Group

Individuals in Scotland serving Community Payback Orders (CPOs) as an alternative to custody can choose to engage with "Other Activity", where they can develop their interpersonal, educational, and vocational skills to support progression to employment and prevent re-offending. But many do not take part as they are unaware of the activities available. This can have a disproportionately negative impact on an already marginalised cohort of society, affecting their employability and housing prospects, which can in turn affect options for family contact. One reason for the limited uptake is that information about available options is extremely fragmented, in the form of emails, newsletters and personal connections.

The Justice Training Directory will seek to address this problem by providing a national platform for making referrals to and booking vocational training and interventions suitable for "Other Activity". It will join up the organisations who deliver interventions and skills training with Social Workers who want to refer their clients. It will list courses and activities, manage bookings and provide automated reporting directly back to Criminal Justice Social Work Services (JSW) as the responsible body.

As it will be nationally available and fully online, it will offer easy access and increase referrals to existing interventions, maximizing the use of resources currently available.

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Next Level

The BGI

Black, Asian and minority ethnic young women and non-binary people are massively underrepresented in videogame development education and, consequently, the industry. They don't pursue these careers because of a lack of visible role models and prevailing cultural stereotypes about suitable jobs for women and non-binary people. We want to turn this around and open up opportunities in this fast-growing, well-paid industry. Underrepresentation is not only a diversity problem, it impacts the artform. Many fans report disappointment at the lack of relatable characters and experiences in games. Change is being driven by both social justice and the market. The missing links are targeted vocational learning, access to information and viable pathways into careers.

The BGI is a charity for games culture, skills and diversity. The project will develop and pilot an online course led by women and non-binary people for young women and non-binary people which will introduce them to videogame creation and careers. Using accessible technology, participants will learn art and animation skills, narrative development, and basic coding. Led by a diverse games developer, learners will work in cohorts of 15 to co-create and publish videogames for the public. The course will build sufficient skills to enter a games studio on a traineeship.

The technical design will use Crayta, a new platform for collaborative game design, to give participants a foundation learning experience. Cloud technology and platform accessibility means that participants can create and learn from home without high-performance devices. Accessible technology also means that the project can be easily scaled in a cost-effective way.

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Online Recovery: keyworker led vocational study as a route out of homelessness

St Mungo's

People recovering from homelessness need opportunities to develop skills for employment to sustain independent living. Current support is often inadequate and fragmented, and people in this situation may have very complex needs which make traditional learning models challenging and inappropriate. St Mungo's supports around 32,000 people a year, and recent surveys showed that 54% would like to be in work. St Mungo's works mainly in London with some other locations in the South of England, however homelessness is a UK wide issue, so the number of future potential learners is vast with an estimated 200,000 known homeless households recorded in 2020.

This project will develop a prototype learning portal accessible online by St Mungo's service users and keyworkers. This portal will encourage vocational skills-building through online courses, tuition and independent learning, all guided by a service user's keyworker. It will record progress so both staff and service users can accurately gauge progression and plan for introducing move-on from homelessness services and next steps at the right time.

When learners have completed their skills programmes and achieved their goals, keyworkers can support them with next steps including moving into independent accommodation, referrals to employment specialists, into volunteering, or into further education.

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Creating a gamification platform for retaining essential UK engineering skills

Enginuity

Enginuity Group

The UK engineering workforce is getting older and not being replaced quickly enough as they retire or leave the sector. Around 186,000 skilled new recruits will be needed each year until 2024. The issue of 'tacit knowledge transfer' (learning know-how from existing experts) and skills retention is critical in key sectors of manufacturing. Enginuity will pilot with companies from the Aerospace industry the creation of a knowledge retention game platform to bridge these gaps.

The project will develop a gamified learning platform to capture and exchange best practice, informal and tacit knowledge and expertise from skilled workers – the things you traditionally learn by working alongside time-served engineers. This will enable companies to create their own games, appropriate to their individual workplace, to allow skills to be gained in context.

The primary audience will be level 3 and level 4 engineering staff working alongside those at high risk of leaving the sector. The demonstrator will enable scenario based 'learning by doing' supporting areas of high skills loss which are critical to sustaining and recovery in the industry. The pilot project will engage with 200 engineers from two major organisations (British Aerospace and GKN), as well as supply chain SMEs. It will use a BrightGame Aerospace skills retention game applied to potential level 4 'leavers' capturing best practice and tacit expertise, and enabling sharing of key skills in maintenance and inspection.

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Proof of Concept: School of Sharing

Library of Things Ltd

The School of Sharing is a platform aiming to offer training for people looking for purpose-driven work with a social conscience. Focusing on the 'circular and sharing economy' where more is reused and recycled, digital training will be produced by Library of Things and existing partners such as Bosch and Kärcher. The initial research and programme with volunteers highlighted the positive impact on learner confidence, a critical issue in terms of post-covid recovery.

Within this 12-month project, Library of Things will prove the concept for School of Sharing by producing two learning journeys for its job applicants/local recruits across its locations, around Community Activation and Electronic Appliance Repair/Maintenance. Hosted on an online platform, these journeys will be peer-produced, weaving together milestones, content, self-assessment, peer feedback and accreditation. In addition, it will define training needs among similar community-powered enterprises e.g. toy/tool libraries, makerspaces, bike/laptop repair, to see how the School of Sharing could also benefit them.

The funding from Ufi is focused specifically on building a digital platform for the creation and sharing of learning content. The LoT currently has contracts with 8 London authorities to recruit/train local people and to kickstart the skill-sharing service with a further pipeline of UK councils who have expressed an interest. This project will create a more sustainable digital platform which will be more replicable and more easily accessible.

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AI-driven learning platform for reception staff at GP practices

Cenigma

Reception staff in GP practices perform a critical function, often beyond their job description. There are 6,813 GP practices in England with 300 million consultations taking place each year, with the majority still booked via telephone. Reception staff are the most visible and the most accessible of all health workers and due to their position at the point of entry to the healthcare system and they face the brunt of patients' expectations and frustrations. The physical isolation of the front desk means that many of their colleagues remain unaware of the complex reality of their job - to navigate patients safely to the most appropriate care setting.

The solution will use a Natural Language Processor (NLP) / Machine Learning (ML) agent that can understand recorded or real-time conversations between patients and reception staff over the phone and determine the nature of the patient's enquiry and the response or action taken by the receptionist. All of this will be fully anonymised and compliant with GDPR. Common themes and resulting actions can then be transformed to serve as learning content for reception staff.

This approach will contextualise information and enable targeted bite-sized training to be delivered that is based on the unique needs of the local patient population. It will account for demographic and ethnic variations and enable front-line staff to manage patient requests more effectively and address variations in quality of care.

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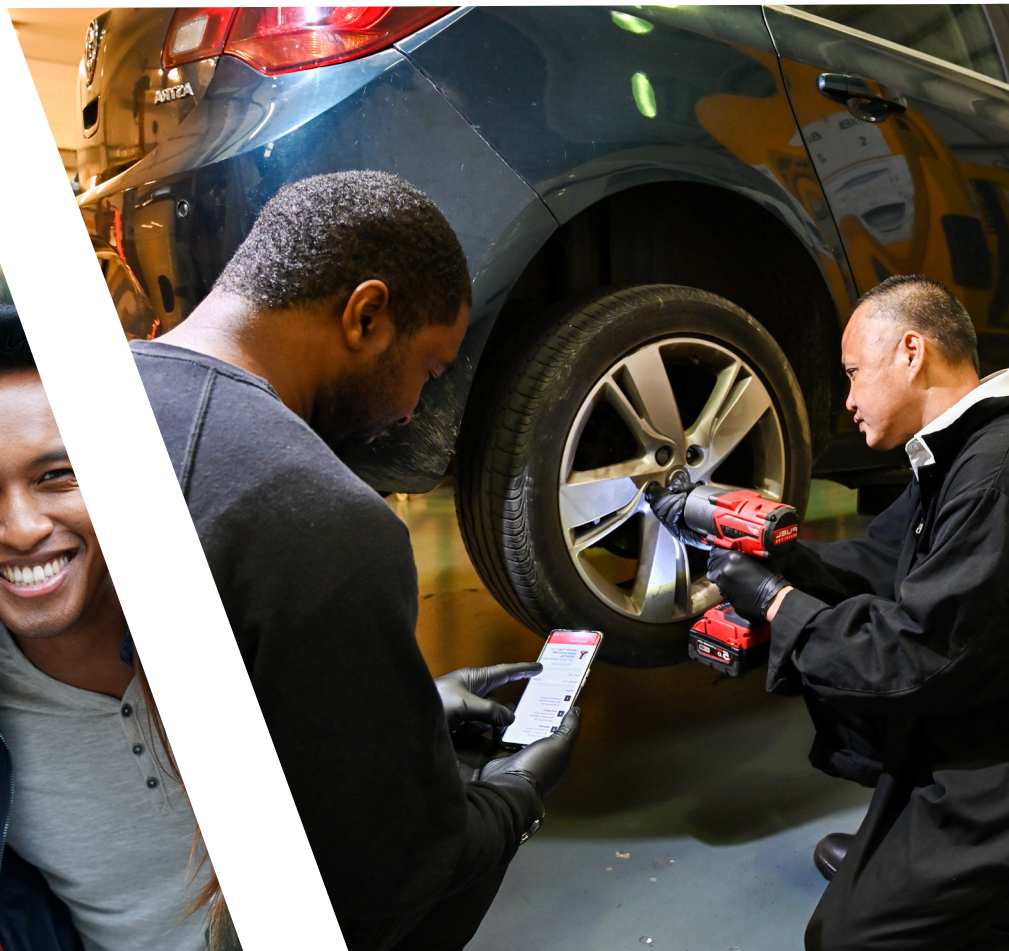
VocTech Impact

VocTech Impact is our launchpad for projects that have a well-developed idea, can deliver to a large number of learners during the project period, and have clear routes to market after the funding ends. These projects provide large scale demonstration of what can be achieved with digital vocational tools. They are our trailblazers for the 'art of the possible'. VocTech Impact is all about harnessing digital to enable more adults to access the skills they need for work. It's about using technology innovatively to make a difference to how people learn and crucially to increase the number of people gaining new skills.

By creating practical demonstrations of the ability of VocTech to deliver cost efficient learning where real skills are gained, we hope to convince many more employers and vocational learning providers of the advantages of digital delivery of vocational learning - helping us to build a better, quicker, digital future for vocational learning. We welcome ideas from all business sectors, right across the UK.

VocTech Impact provides grants of between £100,000 and £150,000 for projects lasting 18 – 24 months.

2018



AgyliaCare
Agylia

There are 6.5 million unpaid carers across the UK who receive little or no training and support in their crucial roles. There is no coherent national training and support strategy for them - current provision is patchy, some through local authorities (reducing due to budget cuts) and some by a variety of charities.

This project aims to change this by using Artificial Intelligence (AI) to identify, trigger and distribute a personalised selection of training materials and relevant task support tools via an App on a Carer's phone, PC or tablet, online or offline. Training will be tracked and can lead to the award of a training certificate.

Agylia will bring together a library of training and support modules, consisting of over 200 pieces of microlearning, optimised for mobile devices, plus over 200 parallel podcasts. The service will also include discussion forums and commenting trails. Agylia are working with Skills for Care, a leading national skills charity for the social care sector.

The project will provide a way for unpaid carers to have their skills recognised, boosting confidence and helping them towards mainstream work after their family caring responsibilities end.

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Assessing Reality
eCom Scotland

The Scottish Qualifications Authority (SQA) have identified that many paper-based skills and knowledge assessments do not fully measure the candidate's capabilities or practical knowledge.

The Assessing Reality project will develop a Virtual Reality (VR) authoring tool that will enable non-technical staff to create cost-effective VR assessments, directly on the web.

VR is ideal for vocational assessment because it will make assessment more relevant to work situations - real workplace settings can be replicated in a safe environment; consistent - assessments can be exactly the same each time; and transparent - tutors, managers or assessors will be able to see exactly what the user can see and measure their reactions in the virtual environment.

This will improve learner engagement and will also provide relevant analytics for assessors.

eCom are now working with the Scottish Qualifications Authority (SQA) to plan how VR assessments could be aligned to their course content and assessment requirements. Product testing will be with learners from Fife College, City of Glasgow College, and with social enterprise Edinburgh Forge. All of these organisations are looking at using VR to support their assessment processes.

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Cities of Learning

RSA & DigitalMe

Access to opportunities is not evenly shared across the population, and our ability to engage in vocational learning is often related to prior experiences in school. Those least advantaged are least likely to benefit from important opportunities to build social, cultural and knowledge capital, as well as social and peer networks.

Cities of Learning creates new pathways into learning and employment by connecting formal, informal, and in-work learning opportunities that exist across cities via a system of digital open badges.

The project will develop a place-based model for vocational learning and skill development by creating large-scale, collaborative partnerships with employers, learning providers, city leaders, and commissioners of learning and work provision. This will be done initially in two pilot cities, Brighton and Plymouth. Ufi funding will be used to develop and roll out a scalable digital platform and open digital badges as a mechanism to connect individuals to local learning and work opportunities and narrow skills gaps.

By connecting locally-generated, locally-relevant learning opportunities more clearly to local work opportunities, the project aims to encourage those furthest from the learning and labour market to come back into learning.

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Engineering Apprentices Mate

GTA England

How can apprentices be supported to learn more independently in the workplace or training room? AR may be the answer to quick access to know-how and expert advice.

The Engineering Apprentices Mate is an engaging point and play augmented reality (AR) learning experience for engineering apprentices, using a piece of virtual machinery or equipment to provide the apprentice with individual learning, support and assessment activities. The object appears in space in front of you and you can turn it to see it from all angles. Tags on the equipment trigger content, created by engineering instructors across the GTA network, which is accessed via the app or AR headsets, giving apprentices more control over their own learning during their apprenticeship training as well as supporting revision for end-point assessments.

Away from the workshop or factory floor areas, the app can be used with photographs of the machinery, as well as accessing the non-augmented reality aspects of the app (the gallery, information about the machine provider and contact information).

Group Training Associations (GTAs) are employer led training providers, focused on delivering high quality provision to key industrial sectors through public-private learning partnerships where employers subscribe to off-the-job training centres to provide efficient, expertly delivered skills.

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EY Smart
PACEY

EY Smart aims to achieve a step-change in how Continuous Professional Development (CPD) can support childcare practitioners, using digital technology to enable them to learn for free at times and in ways that suit them, with the assurance that the learning provided is compliant with national requirements.

Regulation is changing for early years providers and childcare practitioners who, in order to be allowed to care for 0-5 year olds, must demonstrate they are meeting Ofsted's new education inspection framework and the requirements set out for the Early Years Foundation Stage (EYFS) in England, and the equivalent frameworks in Wales.

The EY Smart platform will offer bite-sized modules to help childcare practitioners to understand what the regulatory changes are and how they can support children in their care to reach the underlying developmental stages they need to be ready for school.

Content will be delivered in small chunks, through video observation of good practice, peer learning, curated searches etc. An e-tracker will help learners to monitor their progress, celebrate milestones and share ideas with colleagues. EY Smart will create an online learning community with a 'social' approach to learning in which participants can share success with peers and receive goal-based rewards, all with the assurance of content from PACEY - Professional Association for Childcare and Early Years.

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Flash Academy Workplace
Learning Labs

There are 9 million workers in the UK with low literacy, limiting their access to work now, and to further training for the jobs of the future.

With over 100+ native languages spoken by the UK workforce, employers face real challenges in delivering sector specific Health & Safety and technical training for these low literacy workers. New Health & Safety legislation requiring employers to demonstrate understanding and engagement presents new challenges, especially when considering that on construction sites, migrant workers are twice as likely to be killed.

The FlashAcademy® Workplace English App helps employers to overcome these challenges with short burst lessons, virtual tutors and engaging games. Employees also learn using the world's first 'object translator' that works by taking a photo of an object and instantly translating that object into a choice of 59 different languages. All learning is tracked on a dashboard, to enable employers to evidence their employees' understanding and progress, assisting with Health & Safety compliance.

The project is being developed with the support of Make UK, Jaguar Land Rover's supplier network and BAM Construction. Once proven to be effective with initial pilot companies, FlashAcademy® Workplace will be scaled up nationally, initially in the manufacturing and construction sectors.

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Inspiring Digital Enterprise Award

iDEA

iDEA badges are short interactive online modules, created in consultation with industry experts that you can access for free. Participants take on a series of challenges to earn points which aggregate towards their Bronze, Silver or Gold Inspiring Digital Enterprise Awards. They can be done by independent learners, or in classrooms and workshops.

iDEA learners are incentivised to become digital all-rounders, with the opportunity to take their learning deeper into specific areas of interest by combining a series of badges. The platform aims to help to plug the UK's digital skills gap, with content designed to inspire people to become digital citizens, workers, makers, entrepreneurs and gamers.

The different learning categories cover diverse topics including cyber security, cloud computing and e-safety, as well as animation, growth hacking, customer relationship management and web development.

The team is now developing the Gold Award level and aims to engage additional Partners from the worlds of business, industry and enterprise as an important route to accessing new learners and to make sure that Gold Award vocational badges are tied to skills needs.

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Passive Accreditation in Prisons

Fluence

Currently 47% of prisoners have no formal qualifications and to help overcome this, all UK prisoners are obliged to engage with vocational training as part of their sentence. Learning providers have to address the challenge of delivering training within the complex and transient environment of prisons where learners may be moved to another institution or released before their qualification can be completed.

Fluence has developed a highly accurate, Artificial Intelligence-assisted decision-making engine that emulates the decision logic of educators. Learning providers can input content, such as work assignments, into the Fluence engine, along with decisions made about the content (e.g. grades) and the Fluence algorithm learns to replicate the decision logic of educators on all future content.

Fluence can apply this auto-grading technology to both formal learning and 'naturally occurring evidence' based on the work produced by prisoners on site. It can provide formal evidence of their abilities, as well as assessing them up front. This turns the process of assessment and accreditation into a silent process, happening invisibly in the background, allowing teachers to focus on teaching.

Through this project, the technology has the potential to make a genuine step change in prison education by improving the accreditation of vocational learning for 85,000 vulnerable learners in prisons.

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Scaling With The Crowd

Beam

Supporting people who are either homeless or at risk of homelessness is a challenge that digital tech can help to solve.

Beam is an award-winning organisation that crowdfunds employment training for disadvantaged people. This project will enable new vocational learning opportunities for this community. People are referred to Beam by homeless charities, receiving a bespoke training and employment plan and support from a Beam employee. The crowdfunding model is designed to support people into paid work through vocational training that has recognised and accredited quality, and removes other financial barriers to gaining skills, including the costs of childcare and equipment.

Beam has tested the concept with a small group of learners and more than 20 Beam service users are now in paid employment, following training funded through donations. The project will support the move from proof-of-concept to full roll out. This will include developing the website and supporting infrastructure to be able to scale the solution, with a focus on building a mobile UI and UX for homeless members and donors. Innovative support will be improved through a private area of the website with messaging, ability to support each other's progress and testing of peer support and mentoring.

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Vocational Game-Based Learning

Applio

There is increasing evidence that people can learn more effectively using games or gamification of content. Creating good games-based learning (GBL) is costly and complex. Although there are games creation tools on the market, it remains largely the domain of professionals. This project aims to solve that problem by providing content and tools to allow low cost GBL development. The project will create a simplified version of the underlying games authoring tool that can be used without specific technical skills and that will bring GBL within the reach of smaller organisations and employers.

This project is a partnership between Applio, who are specialists in designing and developing game-based learning and Birmingham Metropolitan College (BMet).

The GBL resources it creates will be aimed at improving the professional skills of young learners entering the workplace, in areas such as situational judgement, communication, problem solving and team working. These will replace current approaches where learning is delivered face-to-face through expensive, labour intensive workshops or through e-learning which often proves to be less effective. The partners will collaborate to create digital games-based learning resources which will provide learning experiences similar to those of face-to-face workshops.

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Waypoint

Marine Society & Sea Cadet Organisation (MSSC)

MSSC currently helps Sea Cadets to achieve more and make a life for themselves, often in very difficult times, through a diverse range of training and development.

Waypoint will transform the Sea Cadets offer, shifting the focus from evaluating outputs e.g. boating hours and towards a focus on outcomes, such as increased qualifications and employment opportunities. It has potential to have a positive impact on those over 16, who are more likely to drop out of Sea Cadets, providing an alternative pathway to college by managing their skills development and vocational training, with the support of their local Sea Cadet group.

The project will develop an interactive portal, accessible via mobile devices, that will give learners clear view of opportunities available to them, the learning journey and what their next steps could be. It will showcase training and career opportunities available nationally in the marine industry (sailing, catering, engineering, etc); provide access to courses available to Cadets based on their career interests; enable Cadets to share information about what they are getting involved in and what they think about those experiences/courses; and enable achievements to be presented professionally in a comprehensive record of achievement and qualifications gained via the Cadet Experience Dashboard.

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2019

Augmented Learning For High Dexterity Applications

National Composites Centre

Composite materials are used increasingly across many industries because of their beneficial properties, with hand layup - layering the materials manually over a forming mold - being one of their most common forms of manufacture. It is a skill that takes time to learn and with expensive materials, it is important to get it right. Existing skills development relies on a combination of job shadowing and experience gained with time on the job. The project seeks to change fundamentally how composites training is developed and delivered, reducing timescales and costs by using novel augmented reality and digital methods alongside e-learning training content.

In this project, a series of digital training scenarios will be created and delivered as part of an introductory-level course. The scheme of work, lesson plans, and objectives will then be created. Finally, the necessary digital materials for each course will be developed, including e-learning content, simulations, and augmented reality programs. In addition to the training carried out at the NCC, there will be real world college trials with trailblazer apprentices in order to assess the performance of the system and material at an example customer location.

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Autolive

North Warwickshire and South Leicestershire College

AutoLive provides realistic, interactive and engaging experiences of a production line. Individual learners will be able to develop familiarity with the production environment and key work tasks, practice dexterity control and safe working practices and as a result reduce errors. Groups of learners will be able to work together to develop co-operative working practices, communication, situation awareness and to experience the pace and urgency associated with working on a modern production line. The system uses Unreal Engine 4 to create immersive 3D Virtual Reality and 2D games-based training.

Autolive will provide real time reporting and feedback, allowing teachers and learners to analyse choices and measure progress against assessment requirements. Representatives from automotive sector organisations are supplying apprentices and trainees who will participate in the project trials to assess its effectiveness.

North Warwickshire and South Leicestershire College and Coventry University Enterprises have combined their vocational training and technology advancement expertise to take their prototype to the next level. The tool will support the delivery of the L2 Lean Manufacturing Operative Apprenticeship Standard and will support modules for core automotive manufacturing techniques, including assembly, sequencing and procedures with lean manufacturing principles, workplace organisation, health & safety, quality assurance, continuous improvement, problem solving and communication.

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Using Tech to Embed Learning

AELP

Cost and connectivity can be real barriers to learning for those in remote settings and reduce the successful completion of learning. Working with manufacturing employers, the proof of concept phase of this project tested and piloted the application of low-cost digital technologies to help improve learner engagement, retention and outcomes. Learners had direct access to bite-sized learning on a VLE (Virtual Learning Environment), via handheld devices. Content, aligned to the manufacturing apprenticeship standards, was accessible in the workplace, triggered by QR codes on equipment or smart posters using AR (Augmented Reality) content to enrich the experience.

The next phase of the project will create an easy-access platform, available to training providers in the Engineering and Manufacturing sectors, optimised to use low-cost VR technology, such as Google Cardboard, and the creation of 360o immersive videos.

The Association of Employment and Learning Providers (AELP) has over 800 members and the learning from this programme will be used to explore whether the approach can be used in a range of other non-manufacturing and service sectors. Partner Gen2 has 900+ apprentices, which gives a solid basis for both evaluation in the testing and rollout phases, and to measure a resulting impact on learning.

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Formative Assessment

Bolton College

Teachers are expected to undertake open-ended formative assessment activities to support and inform teaching, learning and assessment. The burden of work in this area is high and any means of reducing workloads will be beneficial to both teachers and learners.

Bolton College previously had proven the concept of using Artificial Intelligence (AI) to analyse short and long form answers and to demonstrate that real-time feedback can be offered to vocational learners as they respond to online open-ended formative assessment tasks. Their FirstPass tool provided an initial introduction to AI cloud computing technologies which are able to support vocational students and their teachers with open-ended formative assessment tasks.

This project will provide further development of FirstPass to ensure that it is effective and robust in use and can demonstrably improve the teaching, learning and assessment experience of vocational learners. It will provide teachers with a richer medium for assessing students due to its ability to pose open-ended questions that can be automatically analysed and assessed by a computer, giving students real-time feedback and the opportunity to qualify and clarify their responses. The revised AI Cloud FirstPass tool will be suitable for use by vocational students and teachers in multiple institutions.

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Mobiles, Skills & Confidence with Numbers

National Numeracy

The aim of this project is simple – to improve the skills and confidence of 20,000 adults, enabling them to 'get on with numbers' and thereby get on at work. And to do this in a way that is accessible anytime, anywhere.

National Numeracy is an independent charity established to raise low levels of numeracy among both adults and children and to promote the importance of everyday maths skills. They aim to enable everyone across the UK to be confident and competent in using numbers and data, to be able to make good decisions in their daily life and at work.

The project will enhance the NNChallenge website so that it provides an engaging experience on mobile devices, enabling adult workers to improve their skills without the need for a PC with wi-fi access. Content will be developed to support adults with lower maths skills, or a lack of confidence and learners will have the opportunity to demonstrate measurable improvements in proficiency.

The team will partner with Health Education England and The Union of Shop, Distributive and Allied Workers (USDAW) to engage health and social care, and retail and distribution employees to ensure that solutions are effective in settings where staff lack the maths skills and confidence with numbers necessary for their jobs.

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Cognify

Pembrokeshire College

The use of voice-controlled devices continues to increase at a rapid rate and voice will overtake typing as the main search input method by 2022.

Pembrokeshire College has developed the Cognify app that enables learners and teachers to listen to a document, dictate comments and notes and answer questions by utilising text to voice and vice versa within the same document. There are other text/voice solutions on the market, but the ability of the app to work both ways over a range of content is one of its most engaging and innovative features. The app supports multiple content types within a single document including formatted text, figures and videos. Teachers can use it for worksheets and learners can use it for dictating notes into their course materials.

Cognify is already a working app but requires further development of an authoring and sharing platform, an integrated e-commerce engine and integration with recognised tools such as Moodle, MS OneDrive, Google Drive and Blackboard.

The project will be developed at Pembrokeshire College, where there is access to over 3000 work-based learners, and then a wider roll-out to the 126-member colleges of the Blended Learning Consortium. The focus on longer term sustainability is built into the project development and potential future partners have already been identified.

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Digital Change Makers

Mybe Awards

Mybe Awards Ltd

Mybe Awards is a niche organisation creating and delivering specialised awards for people who are hard to help or engage for a variety of reasons or who need or want to improve their lifestyles. They focus on providing opportunities for people who have missed out on traditional education to progress and achieve their goals within their capabilities. The Digital Change Makers project is a unique online learning platform, developed from non-traditional learner perspectives, for criminal justice affected learners underrepresented in higher aspirational learning and careers.

This phase of development will enable the online platform to provide learning services more effectively and on learner's terms, providing strong role modelling in an engaging, peer supported way. The project will use a personalised avatar to help engage learners with their programme content and measure progress. Scenario-based content, to make it more relatable, will be supported by motivation and self-assessment tools to give learners a greater sense of control.

The digital platform will work on all types of devices and will offer clear pathways from a level 2 qualification, a level 3 qualification, an apprenticeship pathway with relevance to multiple employment sectors and a completely new Access to HE Diploma qualification aimed at widening participation of disadvantaged learners in Higher Education.

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Prince's Trust Online

The Prince's Trust

Prince's Trust | YOUTH CAN DO IT

The Prince's Trust supports young people to develop their soft skills and employability skills, breaking down any barriers personal or otherwise, to enable them to eventually find a job or the opportunity to get into training or education.

Now more than ever, young people are facing greater barriers to educational attainment and employment. Currently The Prince's Trust get approximately 100,000 enquiries a year, but unfortunately not all of these young people are able to immediately benefit from the programmes of support offered. The current mechanisms are not as young people friendly as they could be and as a result, there is a fairly high drop-out rate.

With nearly 95% of young people owning a smart phone, Prince's Trust Online will allow more versatility in how and where support can be offered, through both mobile and online learning content. The next iteration of Prince's Trust Online will invite young people to become part of a community from the moment they engage and stay connected through a blended face-to-face and digital platform. This digital on-boarding means they will remain engaged whilst they are waiting for a programme. The project will focus on improving the initial customer experience and improving the digital engagement with young people, which will be offered alongside face-to-face support.

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Digital Productivity Factory

Valuechain

Industry 4.0 - the automation of traditional manufacturing and industrial practices, using modern smart technology is a live issue across all sectors. It represents a significant opportunity for organisations to optimise their use of resources, innovate new value adding products/services and develop a sustainable competitive advantage in the market. At this point in time, many organisations and employers lack the required combination of digital and engineering skills to implement the necessary technological changes successfully and seize the Industry 4.0 challenge.

Valuechain's existing services enable manufacturing companies to compete as world class supply chains. They provide smart manufacturing software that helps organisations to improve productivity, streamline collaboration and generate intelligence. This project aims to extend those capabilities to help organisations develop their future-readiness through the use of personalised development plans in an immersive virtual smart factory environment. The platform will identify skills gaps and then offer learners within manufacturing workforces the opportunity to develop the required digital skills.

Users will undergo an initial assessment and receive suggested training courses to complete in the environment based on their goals and skills. To increase depth of knowledge transfer, each course can be completed in a variety of preconfigured factory layouts and be completed either via the web or through an immersive experience.

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Using AI in FE to Improve Learning Outcomes

CENTURY

Taking English and maths GCSE resits after a less-than successful experience in school is hard – both for the learner and the teacher trying to motivate and support them. FE Colleges were looking for a better way to help learners succeed.

CENTURY is the tried and tested intelligent intervention tool that combines artificial intelligence with the latest research in learning science and neuroscience. It creates constantly adapting, personalised pathways for every student and powerful intervention data for teachers.

Over the past year, CENTURY has been piloting the use of their AI platform to demonstrate its potential to support learning in FE. Their focus is on the impact of AI technology in English and Maths as part of an independent or blended learning strategy for learners who are undertaking resits in these subjects.

Their intelligent intervention tool works with Colleges to stretch and support every student, instantly addressing gaps in knowledge, remedying misconceptions, and providing resources for teacher-led learning sessions.This, in turn, frees up the time teachers spend on marking and feedback to make effective use of classroom time.

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VocTech Specialist 2019

We invited organisations to respond to the Challenge of 'the changing nature of work in the 21st century workplace'. The projects selected for funding were invited to explore their idea using design thinking to really get to the heart of potential users' vocational learning needs and to look at a variety of options for learning design and technology platforms.

10 of the projects successfully completed the discovery phase and were ready to move their idea to the next stage, being offered either Seed or Impact grants.

Digital Aspire

DigitalUnite

Digital Unite | Inspiring POSITIVE CHANGE through digital skills

People with Learning Disabilities who can work but are unemployed and would like to find new roles in the 21st Century workplace are the target learners for this project. Digital Unite are building on their specialist online learning platform and successful 'Digital Champions' model to support learners to develop their digital skills and confidence.

Most workplaces now require a level of digital literacy, if only for completing administrative processes, and many are asking for wider IT skills. Those with learning difficulties face multiple challenges in being able to upskill to prosper in the new digital world. As well as providing routes into employment, the project is creating a 'champions' training model' to empower people with learning difficulties to develop their soft skills and other specialist employment-led skills.

The Ufi funding for Digital Aspire will help to create a stepping stone into work by equipping users with confidence and skills, opening opportunities for a more independent life. The Discovery Phase underlined the challenges for this group of learners and built some exciting new partnerships that will help Digital Unite to create lasting change in the digital confidence of their learners.

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Future DomCare

Barking & Dagenham College

Social care workers are the backbone of the social support system for many elderly or infirm people living at home or in sheltered environments. Whilst they perform a vital service, there is currently no pathway that allows them to progress their skills, unless they choose to move into management. Future DomCare – E CARE will create a mobile platform for virtual learning to increase domiciliary carers' understanding of anatomy and physiology to enable them to use digital tools to undertake clinical measurements.

Their focus is to give social care staff the skills and confidence to use digital tools whilst working with their patients and to work collaboratively with doctors and other health professionals. In this way, they can be quicker to spot deteriorating health and prevent acute illness. In the long-term, this learning tool will enable learning and progression for staff, enhancement of social care services and better outcomes for the people they serve.

The Discovery Phase was enlightening in understanding the needs of users, and their desire to stay at the 'coal face' of the profession, but better skilled and with more prospects. Barking and Dagenham College are working with Care City as key delivery partners for this project.

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WastEd
WAMITAB

Training in the Waste industry is critical to ensure the safety of all workers. WAMITAB are leading the development of a social learning application for the waste and resource management sector, combining the benefits of peer-to-peer learning with the engagement and popularity of social media, gaming and on-demand news. It will support workers in high risk environments to overcome barriers to learning, gain confidence and develop new skills.

Using the design tools they learned in the Discovery Phase, the team were able to identify the 'pain points' of their learners' experiences with traditional learning methods. Many were unconfident in the classroom and ensuring compliance training was completed to industry standards was a challenge. The organisation enthusiastically used the Discovery mentality to look at their core business and reimagine it for the future. In response, a platform is being created with free to use basic functionality, but with potential for individual employer-sponsored additional learning modules and games.

The application will benefit micro, SME and large waste and resource management businesses in the UK, connecting employees across organisations to share best practice whilst they learn.

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Smart Pathways
First Step Trust

First Step Trust has worked over many years with the long term unemployed to provide a safe learning space that will enable them to develop confidence and demonstrate skills and competence in a practical workplace environment – motor vehicle and catering being their two main areas.

Many of the workforce members live with issues such as anxiety and poor literacy which disadvantage them in accessing meaningful employment opportunities. Smart Pathways is scoping a 12-module programme, initially in motor vehicle maintenance and collaborating with the Institute of Motor Industry awarding body and Halfords to break down barriers in this employment sector through the prototype of the Virtual Garage. The Discovery Phase confirmed that many of the workforce members had difficulty with understanding written instructions and proving their competence through written tests.

They also lacked significantly in confidence in their learning. The proof of concept that is being developed will incorporate VR (Virtual Reality), video, AI (Artificial Intelligence) and other vocational technologies to develop a training tool that allows users both to learn and to demonstrate success without requiring high levels of literacy. The long-term aim is to enable those furthest from the labour market to show that they have the skills to succeed in stable employment.

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The Critical Engineer

West College Scotland

What happens when the industry you have worked in for many years is disrupted by new technologies? West College Scotland are developing a 'playbook' called The Critical Engineer which will enable existing engineers to develop skills needed to thrive in an environment of exponential technological growth and change.

The Discovery Phase was used to challenge those in the industry to articulate their learning needs faced with the pace of current change. As well as confirming some of their initial ideas around the VocTech solutions that could be used to help engineers change their practice, the deep-dive into the lived experience of engineering companies gave some invaluable social and economic insights into the work of a 21st Century professional in this field.

The playbook will allow users to utilise a variety of media including video, podcasts and digital badge content which enables engineers to make progress in 3 key metaskills, identified by employers, to enable an innovative mindset. West College Scotland recognises the importance of developing a culture of innovation and flexible routes to training so that a sector that is changing rapidly can upskill its workforce.

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Way To Work

Socrates Software

Socrates Software is working with probationers to tackle unemployment and help reduce reoffending rates. The challenges around this sector are immense, and getting people into meaningful work in a constantly changing modern environment is complex, particularly if they have not worked for some time. Way to Work is using Ufi funding to build a platform that will offer detailed job pathways, with up to date, personalised information about jobs and the skills and qualifications required for them.

Relevant learning and training content will also be included within the pathways. These pathways will be linked to real job opportunities with partner employers, who will also be able to provide their own training modules and other content for candidates.

The Discovery Phase enabled the team to look in depth at what was currently being delivered in prisons and for those transitioning back into work. The information uncovered highlighted a significant gap where learners needed much more support as they moved from one system to another and lost continuity in their learning. It also built partnerships that will help Socrates to effectively support these hard-to-reach learners at a critical time in their lives.

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Flow Logistics Online

Skills For Logistics

The logistics industry is a fast growing sector which has had particular challenges during 2020. It has historically had very low uptake of the apprenticeship levy since, once training for compliance has been delivered, there is limited time and budget to be spent on training for additional but non-essential skills.

Workers can enter the industry with low basic skills and opportunities for progression tend to be limited, creating a vicious circle of low career prospects and staff turnover. The Discovery phase enabled Skills for Logistics to identify in more detail issues around the quality and accessibility of learning, which they had anticipated at the start of the work. In addition, their research uncovered opportunities for greater workforce planning and CPD across the industry.

Their chosen solution, Flow, is an online 'talent growth platform' that is working to enable the transport and logistics sector to provide engaging micro qualifications and learning tools for employees to increase overall levels of learning. It also encourages a collaborative way of working amongst the different stakeholders and employers to upskill the sector as a whole.

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Thrive

Career Matters

Project Thrive is developing guided support for care leavers via a new vocational skills platform, which offers personalised layers of support for learners. Thrive connects care leavers and employers to improve vocational outcomes and opportunities.

The interactive platform will provide insights into vocational occupations, skill sectors, online learning, career coaching and work experience to help learners make informed choices. Machine learning will help to identify those who require deeper levels of support and gather information on what works best to shape future service design. The Discovery Phase was a real adventure for the project, starting from first principles with a mountain of evidence that those who have been looked after in the care sector have, longer-term, relatively poor career and life chances.

The team are passionate about making a difference and levelling the playing field so that all young people entering work or seeking progression can have the same chances. The challenge was to find a starting point that was practical, deliverable and had strong industry support. The discovery phase reaffirmed that intervening early with mentoring and using VocTech solutions to improve confidence and opening up real pathways into work have the potential to transform life chances .

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Personalised Leadership & Management Training for the AgriTech Sector

Boston College

As a College in a rural area, Boston have first hand experience that working at different levels across remote rural communities is challenging for employers, learners and trainers in terms of time and cost. The team used the Discovery Phase to explore with learners and employers the challenges they have in accessing classroom-based learning in order to understand better what VocTech solutions might help to solve those problems.

In response, they are developing a learning programme that not only tackles contextualized learning for the Agri-Tech sector but delivers personalised learning pathways that adapt to the individual's needs as they progress through the course. The VocTech supported learning programme will encourage users to progress onto Level 3 Leadership and Management qualifications, enabling learners to develop in their careers and local SMEs to be supported in their growth. All of this in an accessible fashion to meet the challenges of time and distance.

The College as a whole has benefitted from involvement in the project, taking time to look in detail at their experience with blended learning and how that can be expanded, with the potential for the roll-out of more VocTech solutions into other areas of their work.

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Difficult Conversation Trainer

Contented Brothers

The 'soft skills gap' is a challenge faced by many employers. Emotional Intelligence has been identified as a key factor in determining long term employability and career progress and needs to be nurtured from the early stages of a career. Contented Brothers are working with L'Oreal to create an immersive experience using VR (Virtual Reality) technology, making it easier for young people to develop the skills they need in a controlled environment so that they gain confidence right from the start of their working life.

Targeting non-graduate recruits who would not usually be considered for employment, the team are developing a VR training platform that will enhance the recruitment processes of larger organisations, opening up opportunities for learners from more diverse backgrounds. The Discovery Phase took the opportunity to work with the target user group to determine the likely user acceptance of using a VR experience to learn skills in this way.

They also explored further with larger employers what their recruitment practices were and what the blocks were to recruiting from a non-graduate pool and discovered that there were many perceived benefits of having a more diverse workforce if a way could be found to build those bridges.

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VocTech Ignite

This is our earliest stage support for those new to grant funding or needing extra help to bring their ideas to life.

After two successful pilots, we have made Ignite investments into three projects in 2021, allowing us to extend our unique 'enriched support' to a small number of organisations by linking them up with experts and specialist support. The recipients are projects that were not yet ready for VocTech Seed stage, but where we can see the potential for a significant impact on a hard to reach target audience.

A VocTech Ignite grant does not guarantee progression to a VocTech Seed award.

Organisation	Project Idea
Entitled to Training	Entitled to want to address the financial barriers facing potential learners through making it easier for them to find out about sources of funding.
Landex Land Based Colleges and Universities Aspiring To Excellence	Landex are exploring the use of augmented reality to address skills shortages in the Agriculture and Animal Care Sector.
3 Spirit UK	3 Spirit are looking into an AI-driven electronic performance support system for the health and social care sector.

Ufi Ventures

We are the UK's specialist investor in VocTech ventures, investing in seed-stage companies that are building digital technologies to give people and businesses the skills needed for work, now and in the future.

Our typical first investments are £150,000 as equity or debt, and we may make follow-on investments up to a maximum of £1m invested in any one company. We identify investment opportunities guided by our investment thesis and companies may also make a proposal to us at any time throughout the year by contacting the Ufi Ventures team.

We currently have seven organisations in our portfolio and plan to grow this to 20 or so companies in total. We work closely with our portfolio companies, offering a wide-range of ongoing support and expertise.

Nursery Book Ltd trading as Kinderly

There are c270,000 early childhood education practitioners in the UK who are not using digital tools to support and develop their practice. The wider UK childcare market comprises c80,000 childcare settings which care for more than 2.4 million children under the age of five. Low usage of digital tools in this sector leads to more time spent on administration, less frequent and lower quality training and development opportunities and ultimately less time available for the children. Kinderly offers two software products to address this challenge.

Kinderly Together makes it quick and easy to digitally capture the early years learning journey, allows childcare providers to enhance parent communication and helps to improve the home learning environment. It also provides reporting and tools to better manage childcare provision by viewing developmental progress of all children at a glance with progress tracking, effective planning and reporting via a personalised dashboard.

Kinderly Learn helps early years practitioners to manage their own Continuing Professional Development. All the learning has been designed to be engaging, bite-size, accessible and affordable.

Ufi invested in the company in December 2019 alongside Development Bank Wales and several individual investors. This investment fits with our focus on the opportunities to invest in VocTech for the care and education sectors.

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Enternships Ltd trading as Learnerbly

People in work want to feel that they are developing in their career. When they do, this helps companies retain and attract great people, and upskills the workforce. Learning content, a learning budget and personal development plans are all important aspects of a strong learning and development offer but sourcing and organising training for a diverse range of learners and managing tight budgets across a business can be complicated. Fair and equitable access to training can be a real issue and these are challenges that VocTech can help to address.

Learnerbly encourages self-directed learning by empowering employees with personal learning budgets and a personal development plan; guiding them to resources based on what and how they want to learn. They select from curated learning opportunities including books, coaching, courses, conferences, podcasts, and videos. This personalised approach leads to industry-leading levels of engagement and turns the fixed cost of enterprise-wide e-learning/training licenses, with limited utilisation into a variable one - minimising waste of Learning & Development budgets.

Ufi invested in the company in December 2019 alongside Triplepoint, Front-line Ventures, Playfair Capital and several individual investors. This fits our investment focus on VocTech that aligns impact for employees with business value for employers.

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SonicJobs App Ltd

60% of jobseekers search for roles via mobile devices while employers' application processes are often optimised for desktop technology. In 2019, only 4% of candidates that clicked on a job on mobile ended up completing the application. Job seekers often struggle to recognise and articulate the skills and experience they have, don't explore the full range of jobs that they are suited to or need help to communicate with potential employers. There is a mismatch on both sides of the market.

The SonicJobs mobile app helps jobseekers recognise the skills that they have, find and apply for relevant high-quality jobs, and develop new skills to improve their employability and career progression. SonicJobs has now brought on over 750,000 candidates and over 350,000 jobs; supporting workers to build careers in a range of sectors including health and social care, driving and warehousing, office and admin, hospitality, retail and customer services. Over 250,000 applications are made per month - a candidate applies through SonicJobs every 10 seconds.

Ufi invested in the company in June 2020 alongside JetSynthesys and the British Business Bank. This investment fits with our focus on investment opportunities which help people to navigate the retraining and recruitment market especially in sectors and roles going through radical change e.g. retail, transport.

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Learning Labs Ltd

The UK needs to radically improve access to high-quality essential skills training as it seeks to rebuild the labour market after COVID-19. There are 9m workers in the UK with low literacy, limiting their access to work now, and to further training for the jobs of the future. VocTech can help to bridge some of those gaps.

Learning Labs' mission is to make language accessible to everyone. Learning Labs' FlashAcademy® uses a proven combination of lessons, games, flashcards, tutor videos, and object translation to support people in becoming more confident in using English where it is not their first language. FlashAcademy® Workplace was developed with Ufi's grant funding to accelerate learning of technical and non-technical vocabulary in the workplace. For employers, workplace learning helps ensure quality delivery through training and understanding of compliance matters such as health and safety.

Ufi invested in Learning Labs in July 2020 alongside Midven and several individual investors. This investment fits with our focus on investing to help people in the UK to build the essential skills needed for work, now and in the future, including literacy, numeracy, digital skills, interpersonal and problem-solving skills.

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JCR Group Ltd trading as Bodyswaps

Many sectors are going through significant transformation through automation and digital innovation, not least those which have traditionally been labour intensive such as retail or transport. In this new realm, companies increasingly depend on employees' soft skills to add operational value. Therefore, rapidly developing the soft skills of the workforces is critical.

Virtual and augmented reality has very high potential to enable access to soft skills training at scale. Bodyswaps is developing a Virtual Reality (VR) learning platform and content library offered as a service to businesses that uses VR and Artificial Intelligence (AI) to provide soft skills training similar in performance to expert coaching and role-playing, but close to the cost and scalability of eLearning. The platform empowers learners to safely practice their skills and measure their progress through a library of VR role-play simulations. The company's most recent innovation is a job interview simulator, focused on improving university students' career chances.

With Bodyswaps, organisations of all sizes can boost and scale their training programmes with affordable learning experiences far more effectively than with traditional online exercises or even facilitated role-playing.

Ufi invested in Bodyswaps in September 2020 alongside Haatch Ventures and a group of private investors. This investment fits with our focus on investing to help people learn the essential skills needed for work, now and in the future – including interpersonal skills.

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Capslock Education Ltd trading as CAPSLOCK

By 2030, more than 100m workers in developed economies will need to switch occupations. There are many sectors in the economy with skills shortages, with some of these sectors also perceived as highly challenging to get in to for those looking to re-train. The Cyber Security sector is an example of this, with wide-spread skills gaps and a shortage of new workers. Typically, those looking for a career change have moved into other areas due to the complexities of the space, the high up-front cost of retraining and a lack of a clear pathway into jobs.

CAPSLOCK removes barriers to reskilling in this high demand sector, enabling those looking to retrain to access quality work, without having to pay a penny until they've landed a high-paying job. Learners are taken through online 'bootcamp' learning, delivered entirely within a collaborative digital learning environment that has been built to simulate real working scenarios. Prospective learners are also offered a wide range of financing options to remove upfront cost barriers for retraining. So far, CAPSLOCK have enrolled their first two cohorts of learners, achieving a >90% completion rate for their first Cyber Security course, with more than 25% of those completing already in employment.

Ufi invested in the company in March 2021 alongside GC Angels and Tynton Group. This investment is aligned with objectives of increasing access to work for adults in the UK by improving skills, and addresses issues identified in our investment thesis: removing financial barriers to training as well as improving access to roles in high demand skill sectors.

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TheEducation Hub Ltd trading as Springpod

Even those young people in the UK who can demonstrate high levels of education and qualifications are often seen by employers to lack the necessary experience of work. Only 50% of employers say students are properly prepared for work when they start. Workplaces are crying out for stronger candidates with relevant skills and are looking to engage with young talent at an earlier stage than ever before.

Springpod empowers young people (16-24) to prepare for and secure their next step through their all-in-one platform, with the ambition of reaching one million young people in the next two years. The platform connects students with employers, apprenticeships, Further Education (FE) and Higher Education (HE) earlier than ever before. Young people use Springpod to join virtual events, get advice from employer ambassadors and complete meaningful virtual work experience ahead of applying for their next steps, whether in employment or education.

The company has grown their user base to more than 130k learners and is working with more than 50 leading employers in the UK ranging from AstraZeneca to Vodafone as well as 30 colleges and 20 universities.

Ufi invested in the business in July 2021 alongside Triple Point. This investment fits with our focus on investing in increasing access to high quality work experience for young people. With young people set to suffer disproportionately as a result of the COVID-19 pandemic, we believe it has never been more important for students to be connected with and well informed about the full range of future opportunities available to them whether in work, training or education.

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The Workertech Partnership

In collaboration with the Resolution Foundation

The Resolution Foundation is an independent think-tank focused on improving living standards for those on low to middle incomes. The Foundation's established work programme focuses on incomes, inequality and poverty; jobs, skills and pay; housing; wealth and assets; tax and welfare; public spending and the shape of the state, and economic growth. They are pioneering the UK's first social investment programme aimed at developing and growing ventures seeking to harness technology to improve the prospects, power and career choices of workers – particularly those on low pay or in insecure employment.

Their pilot programme has backed innovative start-ups using digital technology to advance the prospects of those workers. Ufi is now partnering with the Resolution Foundation to provide funding for seed-stage ventures that meet our joint objectives and focus on vocational technology solutions.

The Workertech Partnership, a £1.3m programme, is backed by Joseph Rowntree Foundation, Friends Provident Foundation, Accenture, Ufi VocTech Trust and Trust for London. The Partnership will back a new wave of innovators who will harness technology and data to improve the prospects, power and choices of workers on low-pay or in insecure employment. Collectively the partners will provide funding, and also seek to develop a supportive ecosystem to help them succeed.

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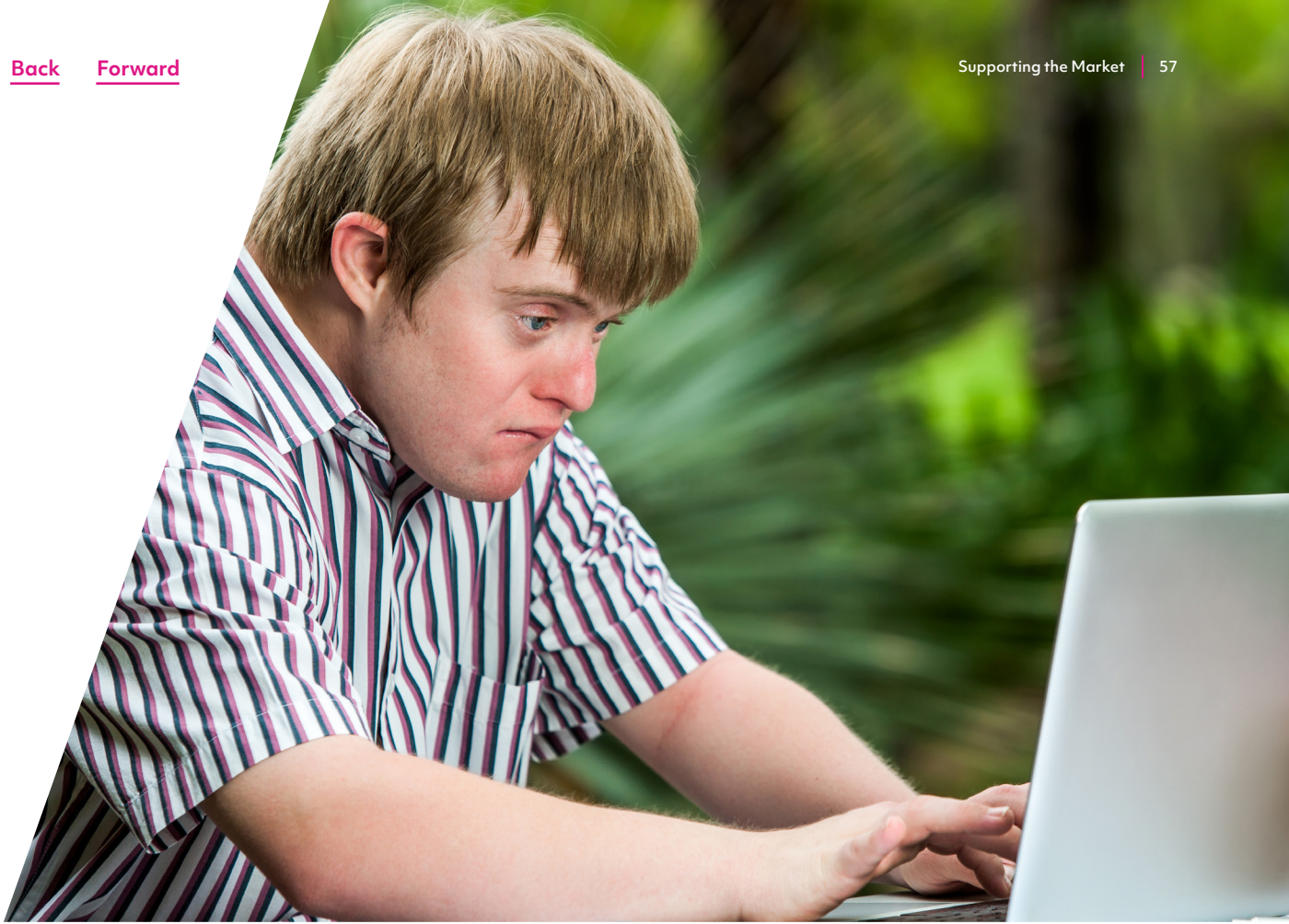
Supporting the Market

Our aim is to equip vocational education and training professionals (VET) with the skills and confidence that they need to adopt 'digital first' into their practice so that they can themselves spread best practice in VocTech pedagogies and better support vocational learners.

Our strategy plans to do this by:

- Investing in and commissioning projects that offer professional development across all aspects of digital supported learning.
- Transfering innovative practice from other ed-tech sectors (in particular secondary and higher education) so that vocational learners can also benefit from those new approaches.
- Maintaining a community of practice so that developers, trainers and all working in the adult education community can develop the confidence to utilise the most appropriate tech to support teaching and training.
- Celebrating the positive impact of VocTech and sharing evidence of impact.



VocTeach

Open University

2020 has brought into sharp relief the need for trainers and educators to have access to great online resources to enable them to support their learners at a distance or in blended learning situations.

VocTeach will deliver a pilot online resource platform for vocational education (VE) practitioners. The platform will enable them to access and share information about digital resources which have been mapped to their specific needs, to enhance their teaching. These resources will include curriculum-relevant content, generic skills materials and software tools for use with learners. The project is not about creating new content, but making it possible for VE professionals to share what is already being used, and creating a 'showcase' for that content.

Educators will be able to see which resources and tools are being used by others, and how such tools could be valuable in their own teaching. The platform will achieve this by encouraging reviews and recommendations of resources. Initially, VocTeach will focus on materials to support educators to teach English and Maths Functional Skills.

The pilot will also test how to engage with the core communities of educational software developers, content providers and end-user teaching practitioners.

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Communities of Practice

ALT

The goal of this project is to establish a successful 'community of practice' (CoP) where vocational teaching staff are able to acquire, develop and share the digital, and digital pedagogical skills they need to thrive in vocational education, in collaboration with the VocTeach platform.

This project will have the following steps:

Carry out a sector audit to provide current data of existing networks and communities that will inform the next stage of the project and provide useful input for wider developments. This initial design, audit and analysis will conclude with the publication of a report for the sector.

Set up a community of practice, informed by the results of the audit and the needs of stakeholders identified. The number of potential users for this network will run into the 1,000s over a 5+ year period, and initially the project plans to engage with 500 pilot users.

Support the community of practice for a one year test period, with a focus on community engagement and networking. The CoP will parallel nine months of the VocTeach marketplace concept-testing phase to get maximum benefit from both projects.

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CHEVROLET
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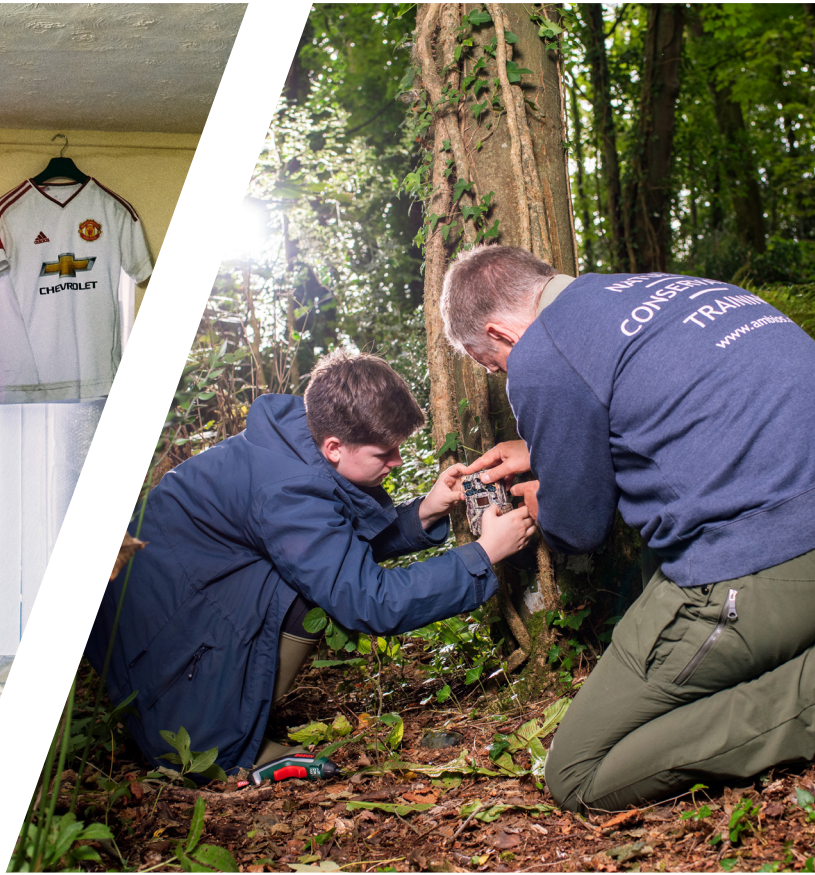

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