

#### Tay Cities Region Deal Digital Skills Project 2023/2024 Annual Report

## Digilook?





DigiTay is part of the Tay Cities Region Deal, Skills and Employability Programme, funded by the Scottish Government.

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## Key highlights

Re-branded as DigiTay

- Published the Tay Cities Region Digital Skills Mapping Report.
- Established the further and higher education digital skills curriculum development group.
- New relationships established with delivery providers.
- 220 people supported to gain digital skills.
- 36 businesses and organisations engaged with the project to upskill their workforce.

# Digirealise... E2.5

million is being invested into digital skills across the Tay Cities Region

In year 1...

222CF people have been supported through digital skills training in

36

2023/2024

businesses and organisations have engaged with the project

#### Introduction

The Tay Cities Deal (TCD) Digital Skills Project is a £4 million investment between 2022 – 2029 to address the digital skills gap across the Tay Cities Region. It is part of the wider £20 million investment by the Scottish Government into the Tay Cities Deal Regional Skills and Employability Development Programme. The regional programme aims to drive inclusive, sustainable economic growth across the region by equipping local people with the skills they need to succeed in the regional labour market. It aims to improve the effectiveness of the regional labour market by targeting disadvantaged groups, supporting skills needs in key sectors, and reducing barriers to accessing employment.

The Digital Skills Project is a two-phase project. Phase 1 is a £1.539m investment between 2022 – 2025 with Phase 2 expected to be delivered between 2025 – 2029 following business case approval. The Phase 1 business case was approved by the Tay Cities Region Joint Committee in December 2022 with activity commencing in March 2023. This report outlines the activity taken place during its first year of delivery.

All activity delivered through the Digital Skills Project is designed to address the digital and data skills shortage across the Tay Cities Region and strengthen the local digital ecosystem.

#### **Objectives and outcomes**

The objectives for the Digital Skills Project are to:

- Plug the digital skills gaps so vacancies can be filled.
- Support the non-tech sector to embrace tech
- Create new educational pathways into the digital economy

#### Through Phase 1 of the project:

- 180 individuals are to be supported through project activity
- Organisations from across business, public sector and education are to be involved
- Within the first year the project has supported 190 individuals and engaged with 36 organisations from across business, public sector and education

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#### Introducing DigiTay

The Digital Skills Project rebranded to DigiTay and launched a new website to promote all project activities. The website will act as a one stop shop for all digital skills training and events across the Tay Cities Region.



In November 2023 the project hosted a launch event in partnership with the Abertay Cyber Quarter bringing together 50+ stakeholders across the public sector, education, third sector and businesses in the Tay Cities Region.



#### Digital Skills Mapping Report

To inform project activity, the project carried out an assessment of the digital skills needs across the Tay Cities Region. This resulted in the publication of the Tay Cities Digital Skills Mapping Report.

#### Key findings from the report include:

- The Tay Cities Region hosts around **8,000** digital and data related jobs.
- **43%** of those jobs are based in Dundee.
- **One in four** of those jobs are software development roles.
- **By 2025** there will be an additional **1,000** digital vacancies across the Tay Cities digital economy.
- The digital skills project should work closely with colleges and universities to support the existing technology ecosystem built upon the success of the gaming and cyber security sectors.
- Evidence shows that businesses and individuals are looking for short, targeted and flexible courses to enhance their digital capabilities. The report recommends that the project focuses on funding the development and delivery of short and flexible courses, including micro credentials, to address the skills needs for the region.
- Feedback from businesses found that stronger and more extensive industry networks would enable greater collaboration between businesses, education and the public sector to address digital skills shortages and recruitment challenges.

Read the full digital skills mapping report here

#### Working with our colleges and universities

A key outcome for the Digital Skills Project is to create new educational pathways into the digital economy. To achieve this, the project has established a further and higher education working group with computing and digital industry representatives from each institution: Abertay University, Dundee and Angus College, Fife College, Perth College UHI, University of Dundee and University of St. Andrews. DigiTay has committed to investing £460,000 of Phase 1 funding into curriculum development enabling the colleges and universities to develop new courses, upskill their staff and support the regional technology ecosystem.

## Professional Learning Programme (PLP)

DigiTay is working in partnership with Data Education in Colleges, a part of the Edinburgh and South East City Region Deal's Data Skills Gateway programme. The projects are co-delivering a Professional Learning Programme (PLP) designed for college lecturers and teaching staff to stay up to date with the latest technological advancements.

The programme aims to help the two regions become more competitive by sharing best practice

and expertise across the college sector, enabling the delivery of higher-level digital and data skills to students and businesses.

Key outcomes for the PLP are to: Provide staff with the opportunity to enhance their digital and data literacy skills.

Enable staff to integrate digital and data skills into their existing activities. These skills may include AI, cybersecurity, data analysis, data visualisation, data security, statistical analysis, and/or data storytelling.

- Allow staff to share best practices across different curriculum areas such as Creative Industries, Computer Science, Engineering, Health & Social Care, and Sport & Fitness.
- Delivered between October 2023 and March 2024 the programme has hosted 15 workshops supporting 141 college lecturers and staff.
- 50% of the participants are from the Tay Cities region.

#### Curriculum Development

DigiTay has allocated £460,000 to the colleges and universities to improve and expand their curriculum. When it comes to the digital economy, each college and university have a unique offer and have used their funding allocation to support this.



#### **Abertay University**

Abertay University is developing and delivering several cyber security micro credentials, providing fully funded places to people living and working in the Tay Cities Region.

## University of Dundee

The HCAI-Hub (Human-Centred AI Hub of Excellence) at the University of Dundee is a pioneering initiative that blends the university's expertise in Artificial Intelligence (AI) and Human-Computer Interaction (HCI). Through the funding enabled through the Digital Skills Project the University of Dundee will create innovative and interdisciplinary learning opportunities to build software development and AI skills that emphasise human-centred design and cuttingedge AI practices. Using resources from the AWS Academy, the HCAI-Hub will enhance and expand their offerings in Machine Learning and Natural Language Processing creating micro-credential courses that focus on developing expertise in an area with a significant skills gap in the local area.

Additionally, the hub will work with secondary teachers and offer flexible modules centred around AI and Machine Learning enabling teachers to integrate technology into their lessons. Through the DigiTay funding the University of Dundee will create innovative and interdisciplinary learning opportunities to build software development and AI skills. The university will create microcredential courses and will work with secondary school teachers to integrate lessons on AI and machine learning into the school curriculum.

### University of St. Andrews

The University of St. Andrew is developing three new data short courses focused on improving the data analysis skills of people working, or with aspirations to work in, data related roles but who have limited programming experience. The new courses will cover an introduction to programming, data handling and data visualisation and will be fully funded for people living and working in the Tay Cities Region.

## Dundee and Angus College

To enable the delivery of a modern curriculum in line with industry trends and public demand. Dundee and Angus College are utilising DigiTay funding to upskill staff with new and up to date qualifications.

This is to enable the college to develop a new curriculum and enhance their existing portfolio.

#### **Fife College**

A career in software development offers a multitude of avenues for people to forge a career in the digital economy. Establishing new flexible pathways into the sector is key to addressing the current shortage of Software Developers across the Tay Cities Region and Scotland. In response to this Fife College are developing a comprehensive and fully online version of the Professional Development Award (PDA) in Software Development at SCQF Level 7. This adaptation of the existing PDA will grant students the flexibility to engage with the course on their own terms enabling individuals looking to retrain to do so on a part-time and flexible basis.

### Perth College UHI

Building upon their expertise in Cyber Security, Perth College are developing tailored cyber security courses for people who are neurodiverse and are engaging closely with the third sector to deliver this.



#### The DataLab Skills for Work Programme

DigiTay has been working in partnership with the Data Lab Scotland to



expand their Data Skills for Work programme into the Tay Cities Region. The Data Skills for Work programme supports workers in adapting to the demands of increasingly digitalised, automated and data-driven workplaces.

Courses delivered through the programme specifically target women, people with disabilities including neurodiversity, those from lower SMID areas and those who are unemployed or underemployed.

Through the Data Skills for Work programme DigiTay has invested £100,000 in the development and delivery of data short courses for people living and working in the Tay Cities Region. Since April 2023, 18 data courses have been delivered supporting 142 people gain data related skills.

### Code Division Case Study

Code Division are a non-profit social enterprise dedicated to combating digital inequality by providing high-quality skills programmes to underserved communities. As part of the Data Skills for Work Programme



Code Division delivered an SQA accredited Data Courses to 120 learners across the Southeast of Scotland and Tayside Region. **Polina**, originally from Ukraine, found herself in Dundee through the Homes for Ukraine



programme. A teacher by training, she worked her way to become an economist in Ukraine. Through a Code Division course funded by DigiTay Polina took the opportunity to gain new data skills.

With no prior experience in tech, Polina initially thought she could learn some new Excel skills on the course. However, she found the course to be a revelation. Going beyond Excel, Code Division offered a comprehensive exploration of working with data, punctuated by vital soft skills training. Discovering her love for the subject, Polina said "I really enjoyed problem-solving with data, it made me feel really calm."

This period of intense learning reignited Polina's self-belief and passion for learning, showing her that data roles were within her reach. She said: "On the course I realised that everyone actually works with data!"

Completing the course in the autumn, Polina's job search yielded positive results quickly. Now working in the Dean's office at the University of St. Andrews, she credits the course for boosting her confidence.

Now a mentor with Code Division, Polina feels inspired by the opportunity and sees it as a creative role where she can translate complex concepts across language barriers, as well as providing support and crucial motivation to others.

Polina's journey from a finance professional to a tech enthusiast and mentor reflects the transformative power of person-centred skills training. Her story underscores the ability of these programmes to empower individuals, not just with technical skills but also with newfound confidence and the courage to explore diverse career paths.

### Software Development Bootcamp for 16–24 year olds

The national shortage of Software Developers is well documented. The number of qualified individuals graduating from university and completing apprenticeships does not meet industry demand. This has been confirmed as an issue in the Tay region by employers. To address this DigiTay piloted a coding bootcamp for 16 –24 year olds.

Funded in partnership with Perth and Kinross Council, the Code Clan Youth Academy (CCYA) was a pilot programme delivered by the coding academy CodeClan with the aim to introduce young people to software development by providing learners with a foundation in coding.

Students were introduced to the coding languages HTML, CCS and JavaScript and by the end of the four-week programme had developed their own website. Industry professionals from local technology companies delivered careers talks and insight sessions.

The programme also enabled students to develop non-technical skills required to work in

industry including communication, teamwork and presentation skills. This was achieved through paired programming, group work and project presentations.

#### **CCYA Graduate Julie-Anne said:**

"This course has absolutely helped to kickstart my career in software development and given me the skills and knowledge necessary to pursue what I wanted to do through the labs, group work, and individual project work. I now intend to find a Modern Apprenticeship in software development to get into the industry. Until then I will be studying in my own time, continuing to work on my project - an online shop - in the hopes I can make the site and my business go live, and possibly even take on freelance web design jobs."

Upon completion learners achieved an Introduction to Website Design at SCQF Level 7 (2 credits).

With the digital skills gap widening and the uptake of Computer Science in schools remaining low, there were no formal entry requirements to participate in the programme. The target audience was 16 – 24-year-olds with an interest in technology.

Since the delivery of the programme CodeClan has closed, however DigiTay is sourcing another provider to continue the programme.



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## Cyber 9/12 Competition with Abertay University

In November 2023 university and college students from across Scotland travelled to Dundee to take on the role of senior government policy advisors as they were challenged to lead decision making and crisis management around a major cyberattack scenario.

Abertay University's cyberQuarter hosted Scotland's second edition of the Cyber 9/12 Strategy Challenge, an annual competition from the Atlantic Council, a foreign policy think tank based in Washington, DC.

The Cyber 9/12 Strategy Challenge is a one-of-a-kind cyber competition designed to provide students from across academic disciplines with a deeper understanding of the policy and strategy challenges associated with management of trade-offs during a cyber crisis.

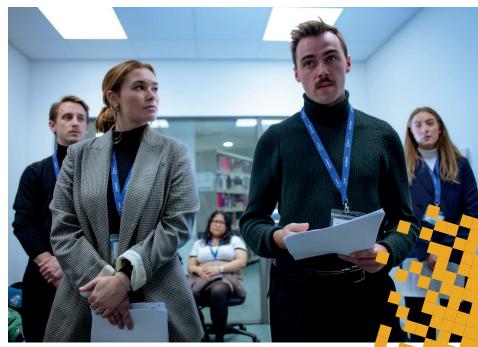
Part interactive learning experience and part competitive scenario exercise, it challenges students to respond to a realistic, evolving scenario, analyse threats to national, international, and private-sector interests, and provide recommendations on the best course of action to mitigate the crisis.

Since its establishment in Washington, DC in 2012, the competition has expanded its reach globally,



with regional competitions across the US, as well as in London, Dundee, Geneva, Paris, Santo Domingo, Tashkent, and Cape Town.

The Dundee challenge was funded through DigiTay and coordinated by Dewar Cyber Consulting and the Abertay CyberQuarter. Fifteen teams took part from Abertay University, University of Glasgow,



University of the West of Scotland, Dundee & Angus College and Fife College.

Senior cybersecurity professionals from Google, the Scottish Government, ScotlandIS, Cyber and Fraud Centre Scotland and Safe Digital Futures were among the judging panels assessing the students' performance.

Taking place during Dundee Digital Fortnight; a two-week technology festival hosted by Dundee City Council the challenge was considered a flagship event for the festival. DigiTay has committed to sponsoring the challenge in November 2024.

#### TravelTech

In September 2023 Traveltech for Scotland launched a pioneering technology initiative to support travel and tourism businesses across in the Tay Cities Region.

Through this six-month pilot Traveltech for Scotland has partnered with local technology experts to help businesses identify and implement technology solutions to improve their business practices and improve customer experience. Through small grants up to 20 businesses can implement and trial new technologies.

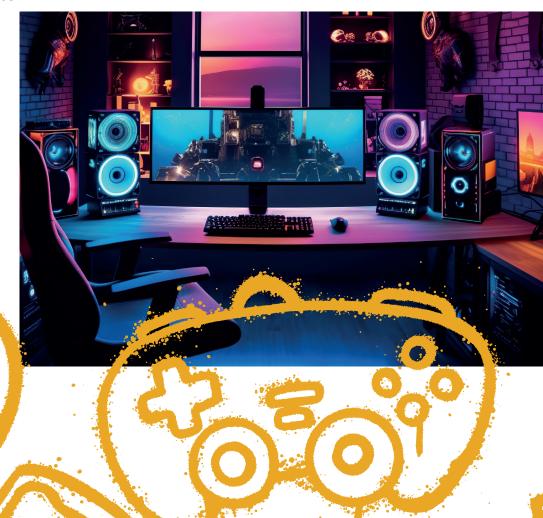
The overarching goal for the project is to speed up the adoption of technology within the sector. By offering both funding and hands-on assistance, the programme seeks to showcase

the potential of emerging technologies. It also aims to cultivate a collaboration between businesses and tech providers in the Tay Cities region. This initiative not only supports small businesses to adopt technology solutions and enhance their digital skills but also positions the Tay Cities region at the forefront of tech adoption and innovation for the travel and tourism industry.

#### **Girls in Gaming**

In partnership with Dundee City Council, DigiTay is funding the delivery of the technology skills programme designed to support women and girls access training in the digital and creative industries. Girls in Gaming is a pilot project delivered by the Dundee based youth and employability organisation Showcase the Street, co-designed with Dundee and Angus College and Abertay University.

The aim of the project is to provide women living in the Tay Cities Region the opportunity to develop their knowledge in gaming, esports and coding. By building their confidence and developing their skills, this five-week programme will support learners to move onto further education or training in the digital and creative sectors.





## Next steps for 2024/2025

DigiTay will continue to work with its partners across public sector, education, third sector and business to address the digital skills needs for employers and individuals in the region.

#### In 2024 DigiTay is:

Continuing to work with colleges and universities on their curriculum development.

Continuing the delivery of the Data Skills for Work Programme with the DataLab.

- **Commissioning a Digital Skills Third** Sector Challenge Fund to engage with third sector delivery providers.
- Extending the delivery of a software development bootcamp.
- Engaging with businesses to understand their digital skills needs with a specific focus on non-technology industries such as construction, retail, travel and tourism and the public sector.



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#### Thank you and partnerships

The DigiTay team would like to thank all our partners and stakeholders who have supported with the development and delivery of DigiTay, the Tay Cities Region Digital Skills Project.

**Abertay Cyber Quarter Abertay University Angus Council Business Gateway Fife Business Gateway Tayside Code Division** CodeClan **Data for Colleges Programme Data Lab Scotland Data Understood Developing the Young Workforce Dundee and Angus College Dundee Chambers of Commerce Dundee Council Fife Chambers of Commerce Fife College Fife Council James Hutton Institute** Perth College UHI **Perth and Kinross Council** Perth Chambers of Commerce **Scotland IS Scottish Enterprise** Service Design Academy **Skills Development Scotland Tech Scaler Technology Coaching** Tay Cities Region Deal Skills and Employability Programme The Data Lab Scotland **TravelTech Scotland** University of Dundee **University of St Andrews** 

