



Cambridgeshire & Peterborough
Local Skills Improvement Plan

Led by Cambridgeshire Chambers of Commerce

Business- Education Translation Guides: **Digital Skills**



Department
for Education



Cambridgeshire
Chambers of
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Digital Skills - why they are needed now

The increasing digitalisation of the workplace has made digital literacy a core competency for workers across all industries, and across the globe. From using basic office software like Microsoft Office Suite to more advanced skills like data analysis and coding, employers are increasingly seeking candidates with a strong foundation in digital technologies.



Digital skills crucial for 80%+ of UK jobs

Research shows most jobs require digital skills. Cambridgeshire and Peterborough's workforce needs digital capabilities.



90% of companies to use digital tech

By 2025 over 90% of companies will use cloud computing, AI, big data, cybersecurity.



Employers want digital talent

Employers increasingly seek candidates with digital tech skills

Digital skills are vital for jobs, business growth and leadership.

Digital Skills - the policy context



The UK aims to be a tech leader

The UK's Digital Strategy aims to establish the country as a global tech leader through education and talent development



Cambridgeshire and Peterborough wants a leading role

Local economic strategies identify digital as key for growth and investment, emphasising the need for talent, infrastructure, and attracting top businesses



But skills gaps must be addressed

Cambridgeshire and Peterborough Local Skills Improvement Plan (LSIP, 2023) recognises the need to address digital skills gaps, particularly in areas like AI and data analysis, and improve training opportunities.

In Cambridgeshire and Peterborough there is **a high demand for digital skills** driven by employer national and regional policies.

The impact of the digital skills gap in Cambridgeshire and Peterborough

Technological change is driving demand for new high-skilled jobs, with science, engineering, and technology professions projected to create the most new jobs by 2035 – over a third of net growth. In the five years to January 2024, there were 100,345 job postings for digital occupations across Cambridgeshire and Peterborough. Programmers and Software Development Professionals accounted for by far the highest share of all job postings across the area.



32%
of businesses

say their workforces lack advanced digital skills (LSIP Survey, 2023)



19%
of businesses

say their workforce lacks basic digital skills (LSIP Survey, 2023)



21%
of unfilled job vacancies

due to a lack of advanced digital skills



1/4 Nearly a quarter of adults in the East of England lack basic digital skills

The digital skills gap in Cambridgeshire and Peterborough is significant, impacting businesses through recruitment difficulties and unfilled vacancies.

Hybrid Working

31%

Share of the East of England's working population who were homeworkers at the start of 2022, up from 16% at the end of 2019

Automation and AI

34%

Business-related tasks that are performed by machines

Big data

30%-35%

Projected increase in demand for roles such as Data Analysts and Scientists, Big Data Specialists, Business Intelligence Analysts, Database and Network Professionals, and Data Engineers, resulting from advances and growth in adoption of frontier technologies that rely on big data

Digital skills requirements for technically-oriented jobs

Top five occupations requesting the skills in each skills cluster

Software and Programming	IT and Telecommunications Professionals	Business, Research and Administrative Professionals	Functional Managers and Directors	Engineering Professionals	IT Technicians
Networking Systems	IT and Telecommunications Professionals	Engineering Professionals	IT Technicians	Science, Engineering and Production Technicians	Electrical and Electronic Trades
Data Analysis	IT and Telecommunications Professionals	Business, Research and Administrative Professionals	IT Technicians	Business, Finance and Related Associate Professionals	Natural and Social Science Professionals
Digital Marketing	Sales-Related Occupations	Functional Managers and Directors	Sales, Marketing and Related Associate Professionals	Public Services and Other Associate Professionals	Media Professionals
Digital Design	IT and Telecommunications Professionals	Sales, Marketing and Related Associate Professionals	Engineering Professionals	Design Occupations	Artistic, Literary and Media Occupations
Customer Relationship Management Software	Sales-Related Occupations	Functional Managers and Directors	Sales, Marketing and Related Associate Professionals	Legal Professionals	Customer Service Managers and Supervisors
Machining and Manufacturing Technology	Engineering Professionals	Science, Engineering and Production Technicians	Architects, Town Planners and Surveyors	Metal Machining, Fitting and Instrument Making Trades	Quality and Regulatory Professionals

Basic features of the formal education landscape as they relate to digital skills

Feature	Apprenticeships	T Levels	Higher Technical Qualifications (HTQs)
Level of qualification	Levels 2-7 (equivalent to GCSEs to degrees)	Levels 2-3 (equivalent to GCSEs to A Levels)	Levels 4-5 (equivalent to higher education qualifications)
Focus	Job-specific, combining on-the-job training with classroom learning	Technical education with industry placements, preparing for skilled occupations	Higher-level technical skills and knowledge, preparing for professional or technical roles
Digital skills integration	Mandatory inclusion of digital skills relevant to the chosen apprenticeship standard	Core component of all T Levels, focusing on digital tools and technologies relevant to the chosen pathway	May include optional units on digital skills, depending on the specific qualification
Overlap with other options	Can lead to further education or higher qualifications	Can be used as an alternative to A Levels for university entry or lead to higher-level apprenticeships	Can be used to top up existing qualifications or enter specific professions



Benefits of digital skills partnerships between business and education providers

Benefits for businesses

Build a future-ready workforce

- ▶ Access a talent pool with the latest digital skills for emerging roles
- ▶ Partner on work-oriented learning, preparing course graduates for your needs
- ▶ Influence curriculum development to ensure job-relevant digital skills

Boost innovation and productivity

- ▶ Spark fresh ideas through knowledge sharing between generations
- ▶ Equip employees with diverse knowledge and digital tools for problem-solving

Enable continuous learning and adaptability

- ▶ Upskill and reskill your workforce with ongoing training opportunities
- ▶ Increase employee engagement with a focus on career growth
- ▶ Build an adaptable workforce ready to embrace new technologies

Demonstrate corporate social responsibility

- ▶ Enhance brand reputation by helping to close the digital skills gap

Benefits for education providers

Boost learner / trainee employability

- ▶ Develop industry-informed courses with in-demand digital skills
- ▶ Facilitate guest lectures, visits, and projects for real-world experience
- ▶ Offer improved career guidance based on industry knowledge

Enhance curriculum development

- ▶ Attract match funding from businesses for digital skills programmes
- ▶ Gain access to cutting-edge equipment and training materials
- ▶ Collaborate on cost-effective and efficient training programmes

Partnership models

- ▶ Integrate real-world case studies and industry insights
- ▶ Stay informed about emerging skills trends and adapt programmes
- ▶ Provide mentorship opportunities with business professionals

Four partnership models

Work placements and internships

Industry guest lectures and workshops

Co-development of curricula and courses

Mentorship programmes

Work placements and internships

Demands on participants		
Businesses	Time and resource investment	Allocating staff time to mentor and supervise placed learners and interns, providing necessary resources and equipment
	Safety and security	Ensuring a safe and secure work environment
	Clear learning objectives	Defining clear learning objectives and providing opportunities for skill development
Education providers	Planning and coordination	Developing internship placements, managing logistics, ensuring alignment with curriculum
	Supervision	Mentoring interns alongside business supervisors, assessing learning outcomes
	Quality assurance	Maintaining the quality of the internship experience for students
Learners	Initiative and adaptability	Actively seeking and engaging with assigned tasks, demonstrating a willingness to learn and adapt to a new work environment
	Meeting performance expectations	Delivering work to a professional standard and fulfilling assigned responsibilities
	Building relationships	Networking with professionals and colleagues, building communication and interpersonal skills

Industry guest lectures and workshops

Demands on participants		
Businesses	Expertise and time commitment	Providing industry professionals to deliver lectures or workshops, tailoring content to the educational setting
	Clear communication	Effectively communicating industry knowledge and insights in a way that is engaging and relevant to students
Education providers	Coordination and logistics	Arranging guest speakers, scheduling sessions, ensuring alignment with curriculum and student needs
	Learning environment	Providing appropriate venue and presentational resources to support guest lectures and workshops
Learners	Active participation	Attending sessions, actively engaging with guest speakers, asking questions, and participating in discussions
	Critical thinking and analysis	Applying the presented information to their existing knowledge and understanding the real-world context of digital skills

Co-development of curricula and courses

	Demands on participants	
Businesses	Time and resource investment	Committing start time to collaborate with education providers aligning industry needs with curriculum development
	Sharing industry expertise	Providing insights into current skills requirements and emerging technologies
	Clear communication of needs	Clearly articulating the specific skills and knowledge needed by the industry
Education providers	Curriculum development expertise	Actively participating in curriculum development, adapting teaching methods to incorporate industry needs
	Staying updated	Ensuring curriculum reflects the latest industry trends and technological advancements
Learners	Adaptability and openness	Being receptive to changes in the curriculum based on business input, understanding the rationale behind industry-driven modifications
	Engaging with business input	Actively participating in discussions and providing feedback on the industry- aligned curriculum

Mentorship programmes

	Demands on participants	
Businesses	Time commitment	Mentors dedicating time to regularly connect with mentees, providing guidance and support
	Industry knowledge and expertise	Mentors possessing relevant industry knowledge and experience to share with mentees
	Communication and interpersonal skills	Mentors effectively communicating with mentees, building rapport, and fostering a supportive relationship
Education providers	Matching and facilitation	Matching learners with suitable mentors based on their interests and career aspirations
	Programme management	Overseeing the mentorship programme, ensuring effective communication, coordination, and addressing any challenges
Learners	Initiative and proactivity	Actively seeking guidance and feedback from mentors, taking the initiative to ask questions and engage in discussions
	Commitment and follow-through	Regularly attending meetings, completing assigned tasks, and demonstrating a commitment to the mentorship programme
	Building relationships	Developing a strong working relationship with the mentor, effectively communicating needs and aspirations

Principles for effective communication and collaboration between partners



Principles for effective communication and collaboration between partners

Action	Principles for education providers	Principles for businesses
Identify contact points	Designate a team or individual responsible for liaising with businesses	Identify key decision-makers within the business regarding workforce development needs
	Participate in industry events and conferences to network with potential partners	Establish a clear point of contact for communication with education providers
Establish joint objectives	Conduct needs assessments to identify the specific skills required by local businesses	Clearly articulate the desired skills and competencies needed for the workforce
		Collaborate with education providers to define measurable learning outcomes
Set out clear roles and efficient communication channels	Develop a communication plan outlining preferred methods and frequency of interaction (e.g., meetings, reports, online platforms)	Establish clear procedures for communication within the business to ensure information reaches the relevant decision-makers
	Designate specific individuals responsible for project updates and information sharing	Allocate dedicated resources to facilitate communication and collaboration with education providers
Explore opportunities to work with peer network organisations and sector partners	Reach out to national and local business networks, trade and professional bodies, to connect with their leads for people and skills	Engage with industry leaders and professional bodies to gain insights into emerging workforce trends
	Collaborate with other education providers to share best practices and leverage combined resources	Partner with other businesses to approach education providers with joint propositions for courses and training



Resources and support



Funded Programmes / Services for Business

Programme and availability	National	Regional	Local	Other
Amazon Small Business Accelerator	✓			
Anglia Ruskin University Enterprise Academy	✓			
Be The Business (productivity advice and support)	✓			
British Business Bank	✓	✓	✓	
Cambridge Enterprise (University of Cambridge)				✓
Eastern Cyber Resilience Centre (Eastern Region police forces, Business Resilience International)		✓		
Government Business Support Helpline (UK Government)	✓			
Growth Hub		✓	✓	
Innovation Loans	✓			
Institute for Manufacturing (University of Cambridge)				✓
Knowledge Transfer Partnerships	✓			
Let's Do Business Finance (Business Growth Loans)				✓
Low Carbon Innovation Fund	✓			
The East of England Regional Growth Loan Scheme (FSEGroup)		✓		
UKRI (includes sector Research Councils, England, and Innovate UK)	✓			

Membership Organisations Providing Networking/Peer Learning

Network	National	Regional	Local	Other
Cambridge Enterprise and Technology Club (CETC)			✓	
Cambridge Network		✓	✓	✓
Cambridge Wireless		✓	✓	✓
Cambridgeshire Chambers of Commerce	✓	✓	✓	✓
Enterprise Nation (Tech Hub)	✓			✓
Federation of Small Businesses	✓	✓	✓	
Make UK	✓	✓		



Glossary

Digital technologies

Jargon	Education perspective	Business perspective
Artificial Intelligence (AI)	Simulating human intelligence in machines to perform tasks typically requiring human thought.	Automating tasks, improving decision-making, and personalising user experiences (e.g., chatbots, product recommendations).
AutoCAD	Software for computer-aided design (CAD) used to create 2D and 3D drawings.	Creating technical drawings for engineering, architecture, and product design.
Cloud Computing	Renting data storage space and processing power online instead of having your own physical servers.	Accessing software, storing data, and running programmes over the internet instead of needing in-house infrastructure. Saves on hardware costs and IT maintenance.
Computer Numerical Control (CNC)	Using computers to control machine tools.	Automating the operation of machinery in manufacturing, resulting in greater precision and efficiency.
Cybersecurity	Protecting systems and data from unauthorised access, use, disclosure, disruption, modification, or destruction.	Securing networks, data, and critical infrastructure from cyberattacks.
Data Analytics	Extracting information and insights from large sets of data.	Making data-driven decisions to improve efficiency, identify trends, and target customers.
Machine Learning (ML)	A type of AI where computers learn from data without explicit programming.	Developing algorithms that can learn and improve over time, used for tasks like spam filtering and fraud detection.
SAP Applications	Enterprise resource planning software used to manage various business processes.	Integrating various departments (e.g., finance, sales, human resources) within a single software system.
Software Development	Creating new software applications or modifying existing ones.	Designing, coding, testing, and maintaining software programmes used for various business functions.

Digital skills clusters

Jargon	Education perspective	Business perspective
Customer Relationship Management Software (CRM)	Understanding how to use software to manage interactions with customers.	Tracking customer information, managing sales leads, and providing better customer service.
Data Analysis	Acquiring the skills to collect, clean, analyse, and interpret data.	Extracting insights from data to inform decision-making, solve problems, and improve business strategies.
Digital Design	Developing creative skills for user interfaces (UI) and user experience (UX) design.	Creating visually appealing and user-friendly websites, apps, and other digital products.
Digital Marketing	Learning how to market products and services online.	Reaching customers through online channels like social media, search engines, and email marketing.
Machining and Manufacturing Technology	Gaining knowledge and practical skills in operating and maintaining machines used in manufacturing.	Setting up, operating, and troubleshooting CNC machines and other manufacturing equipment.
Networking Systems	Understanding how to configure and maintain computer networks.	Setting up, managing, and troubleshooting computer networks to ensure smooth communication and data flow.
Software and Programming	Learning to code and develop software applications.	Building and maintaining the software that powers businesses, websites, and mobile apps.

Career development and workforce planning

Jargon	Education perspective	Business perspective
Career Path Planning	Developing a strategy to navigate your professional journey and achieve career goals.	Providing employees with resources and support to define career aspirations and plan their development within the business.
Digital Job Roles	Jobs emerging or evolving due to the use of digital technologies.	Understanding the changing job landscape and the skills required for these new roles.
Digital Skills Framework	A structured reference guide outlining the digital skills needed in various professions.	Identifying the essential digital skills required for current and future job roles within the business.
Learning Management System (LMS)	A software platform for delivering and managing training programmes online.	Investing in employee development to ensure they possess the necessary skills to stay competitive.
Talent Management	The process of attracting, retaining, and developing high-performing employees.	Providing employees with centralised access to online learning materials, tracking progress, and measuring the effectiveness of training courses.
Upskilling and Reskilling	Gaining new skills or improving existing ones to keep up with technology.	Investing in employee development to ensure they possess the necessary skills to stay competitive.

Approaches to learning

Jargon	Education perspective	Business perspective
Blended Learning	Combining traditional classroom learning with online components.	Providing a mix of instructor-led sessions and online resources for a well-rounded learning experience.
Collaboration Tools	Software applications that enable communication, document sharing, and project management within teams.	Facilitating teamwork, knowledge sharing, and efficient project completion.
E-Learning	Learning through online platforms with interactive modules, videos, and quizzes.	Offering flexible and self-paced learning opportunities for employees.
Gamification	Incorporating game mechanics (points, badges, leaderboards) into learning activities to increase engagement and motivation.	Making learning fun, interactive, and competitive, leading to improved knowledge acquisition.
Mentoring	Pairing experienced professionals with individuals seeking guidance and career development.	Facilitating knowledge transfer, providing support, and empowering employees to achieve their full potential.
Micro-Learning	Breaking down training content into short, focused modules for easier absorption and knowledge retention.	Delivering bite-sized learning content that can be easily integrated into busy schedules.

Qualifications

Jargon	Education perspective	Business perspective
Digital Literacy	The ability to use technology effectively and critically to navigate the digital world.	A foundational skill necessary for all employees to perform basic tasks and adapt to the evolving technological landscape.
Industry-Recognised Certifications	Credentials demonstrating proficiency in specific software, tools, or technical skills relevant to an industry.	Verifying an individual's expertise in a particular area and increasing their competitiveness in the job market.
Micro-Credentials	Smaller, focused learning units offering targeted skills and knowledge.	Providing bite-sized learning opportunities for employees to acquire specific skills relevant to their role or upskill in a particular area. Micro-credentials can be stacked to build towards a larger qualification.

Investment in people

Jargon	Education perspective	Business perspective
Agile Working	Adapting quickly to new situations and ways of working.	Creating a flexible and innovative company culture that can respond to changes in technology.
Cybersecurity Awareness	Knowing how to protect your information and devices online.	Creating a secure work environment to minimise the risk of cyberattacks.
Digital Workplace	Using technology to improve communication, collaboration, and productivity within the organisation.	Creating a modern and efficient work environment that empowers employees.
Employer Branding	Building a positive reputation as an attractive workplace.	Attracting and retaining top talent by fostering a culture of learning, development, and employee well-being.
Work-Life Balance	Maintaining a healthy balance between work and personal life.	Promoting employee well-being and reducing stress, leading to increased productivity and engagement.

This project has been funded by the
Local Skills Improvement Fund

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