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College Development Network

RESEARCH REPORT

DIGITAL SKILLS DEVELOPMENT IN SCOTTISH COLLEGES: A SCOPING PROJECT

WALTER PATTERSON CONSULTANCY

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1. EXECUTIVE SUMMARY

1.1 College strategies

This report shows how Scottish colleges are approaching the development of digital capabilities among their staff, based on interviews with key personnel across multiple colleges. The findings reveal a sector in transition, moving from reactive, system-driven training approaches toward more strategic, embedded models of digital capability development. While significant progress has been made, particularly in response to the COVID-19 pandemic and the adoption of new technologies, considerable variation exists in both strategic maturity and implementation effectiveness across the sector.

The research reveals a clear trend away from standalone digital strategies toward integrated approaches that embed digital capabilities within broader institutional frameworks. This shift reflects a growing understanding that digital capabilities cannot be effectively developed in isolation from other organisational priorities and processes. Several colleges have explicitly avoided creating separate digital strategies, instead choosing to integrate digital objectives into existing strategic frameworks. However, this approach requires careful coordination to ensure digital priorities are not marginalised within broader strategic objectives.

The sector displays varying levels of strategic maturity in digital capabilities development. Some colleges demonstrate sophisticated approaches with clear governance structures, dedicated leadership roles, and comprehensive frameworks, while others remain at earlier stages of strategic development. The most advanced colleges have established dedicated roles such as Directors of Digital Transformation, supported by cross-functional teams such as Learning and Teaching Academies, HR/Organisational Development, and IT departments. These colleges typically demonstrate

clearer strategic direction and more systematic approaches to capability development. Conversely, a few small colleges acknowledged a lack of clear digital leadership that created challenges in coordinating efforts and ensuring consistent progress in digital development across the college.

1.2 Assessment of digital capabilities

The sector employs various methods to assess staff digital capabilities, ranging from formal diagnostic tools to informal relationship-based approaches. The Jisc Digital Capabilities Framework and associated Discovery Tool are available for all colleges to use, though the research reveals patchy implementation with mixed results in terms of staff engagement and practical outcomes.

For some colleges the availability of sector-wide frameworks was seen as providing legitimacy and structure to institutional efforts, helping them justify investment and resources for digital development. However, the research also reveals limitations in how these frameworks are being implemented, with several colleges expressing concerns about the complexity and resource requirements of available frameworks and tools. Some colleges have used these sector frameworks as a basis for their own assessment approaches, including digital capability checklists. There was also notable scepticism about the value of self-assessment of digital capabilities, with a preference for more personalised, contextual approaches to understanding staff needs.

Many colleges have incorporated digital skills assessment and development planning into their formal staff performance review processes. This ensures digital capabilities are treated as core professional competencies rather than optional extras. In all but a few colleges there was no

mandatory requirement to include digital capabilities in a performance review, but there was an expectation on managers to encourage their team to do so.

Many colleges had developed comprehensive digital induction processes for new staff, covering everything from basic system access to advanced pedagogical tools. Some colleges reported that the completion of digital training was a requirement for a successful probationary period, ensuring all new staff achieve minimum levels of digital competencies.

1.3 Development and support

The research also reveals a clear evolution from traditional, one-size-fits-all training sessions that often fail to engage staff or provide practical value, toward more targeted, contextual approaches that are curriculum-specific or role-based. Many colleges have adopted approaches that feature short, focused training sessions, such as 2-3 minute video tutorials, 15-30 minute workshops, and “mini-bites” sessions that respect staff time constraints while delivering targeted skills development. Colleges report success with multiple delivery methods, including online resources, face-to-face workshops, one-to-one coaching, and peer-to-peer learning. This multi-modal approach recognises that different staff have different learning preferences and constraints.

The research reveals significant challenges in managing the cultural aspects of digital capabilities development. Staff attitudes toward digital development vary considerably, with some embracing new technologies enthusiastically while others remain resistant or anxious. Successful colleges have developed approaches that acknowledge and address these concerns. Key strategies include “safe spaces” for learning, where staff can experiment with new technologies without fear of judgment or failure. The provision of personalised support that meets staff where

they are in their digital journey was preferred over mandating participation in generic training, and included one-to-one coaching, peer mentoring, and flexible learning pathways. All colleges acknowledge particular challenges in supporting long-serving staff who may feel less motivated to develop new digital skills. Successful approaches for these staff focus on demonstrating immediate practical benefits rather than long-term career development.

Many colleges have implemented digital champions or peer support models, though with varying degrees of success. These approaches typically involve identifying staff who have a desire to support their peers’ digital development and then providing them with ongoing support, clear role definitions, and recognition of the time commitment involved. Without this support, the champions model tends to lose momentum over time.

1.4 Resources for training and development

The development of digital capabilities requires significant ongoing investment in both human and technological resources. The research reveals considerable variation in how colleges approach this challenge. Some colleges have made substantial investments in dedicated staff roles, including learning technologists, digital leads, and organisational development specialists. These colleges typically demonstrate more systematic and sustainable approaches to capability development. However, resource constraints were a common challenge across the sector. Several colleges acknowledged historical underinvestment in professional development, particularly for professional services staff.

Colleges employed various strategies to balance internal capacity building with external resource utilisation. This included the use of external platforms such as LinkedIn Learning, though engagement is often low without active promotion and curation. Some colleges engage in collaborative

approaches, sharing resources and expertise with other colleges or external organisations. The most sustainable approaches focused on building internal capacity through training existing staff to become developers and supporters of upskilling efforts.

1.5 Emerging technologies

The sector is grappling with how to integrate emerging technologies, particularly Artificial Intelligence (AI), into both teaching and administrative processes. Several colleges have established AI steering groups and are providing training on AI tools for both staff and students. However, approaches to AI integration vary considerably. Some colleges have developed comprehensive AI strategies with dedicated training programmes, while others are taking more cautious, exploratory approaches.

Another area of college operations that requires additional or improved digital skills is in relation to process automation. The availability of useful tools such as Microsoft's Power Automate, have the potential to help individuals and college teams streamline business processes by creating automated workflows without requiring extensive coding knowledge. However, the skills to use these tools is limited to a few. It would be beneficial to colleges to share experiences of workflow automation and elevate efficiencies in a wide range of administrative tasks.

1.6 Conclusion and Recommendations

The development of digital capabilities among college staff represents a critical challenge for Scotland's college sector. While significant progress has been made, particularly in response to external pressures and technological advances, considerable variation exists in both strategic maturity and implementation effectiveness.

The evidence confirms that Scottish colleges are ready for enhanced national coordination in digital capabilities development, provided it respects college autonomy while delivering practical, accessible, and relevant support. The sector's existing collaborative culture and informal networks provide a foundation for the development of a national provision as proposed in the recommendations below.

To ensure the effectiveness of these recommendations, any plan should address barriers that may hinder engagement with digital capabilities development. Resources should be designed to be highly accessible and intuitive, accommodating staff at different levels of digital proficiency. Regular updates are required to reflect evolving software features and interface changes. Furthermore, national support structures should be built on principles of trust and collaboration, promoting co-creation and mutual learning. Emphasis should be placed on fostering informal, peer-led knowledge sharing, which complements more formal, structured support mechanisms and encourages a culture of reciprocal engagement.



➤ Recommendation 1

Formalise and Expand National Communities of Practice and Professional Networks:

- Enhance existing formal and informal networking by fostering national-level communities.
- Prioritise specialist communities for emerging technologies, particularly Artificial Intelligence (AI) and data analysis.
- Facilitate peer learning through communities of practice
- Compile and disseminate case studies and success stories from colleges.

➤ Recommendation 2

Establish a National Digital Resource Hub:

- Develop a centralised hub that consolidates existing resources into a single, easily accessible repository for digital learning materials relevant to college staff.
- Design the repository to be fully searchable and organised to enable staff in any role to locate and access resources most relevant to their specific needs.
- Establish digital capabilities pathways that explicitly address the unique needs and priorities of the sector (e.g., for finance, management, teaching staff) that can be shared across colleges and adapted locally.
- Curate and make available playlists of digital resources, structured by job role, subject area or software platform.
- Incorporate and share locally developed resources from colleges.
- Prioritise micro-learning resources that are bite-sized and task-specific, as these are consistently requested and proven to be effective.



➤ Recommendation 3

Provide Targeted Support and Coordinated Guidance for Key Digital Areas:

In addition to any national communities of practice for these specialised areas, consideration should be given to providing the following:

- For Artificial Intelligence (AI): Develop a common framework for AI literacy in education, providing sample policies and ethical guidance.
- For Data Analytics: Support for data analytics and data visualisation tools (such as Power BI), and the sector-wide priority of data literacy, including ethical considerations.
- For Cybersecurity: In addition to the extensive support available from other agencies, a sector-wide approach to cybersecurity would facilitate information exchange and potentially lower costs.
- For Accessibility and Digital Inclusion: Provide centralised guidance and resources on producing accessible documents, using assistive tools, and inclusive digital pedagogy to raise sector-wide standards and support colleges, especially smaller ones lacking in-house capacity.

➤ Recommendation 4

Review Applicability of Digital Capabilities Frameworks

- Establish sector-wide core expectations or minimum digital entitlements for staff in different roles across colleges.
- Formulate alternative wording for existing frameworks to align them with Scottish expectations and contexts.
- Use existing frameworks to propose modular curricula that would support college staff to record and track progress in their digital competencies.

➤ Recommendation 5

Support Digital Leadership Development

- Offer leadership development resources to help leaders effectively promote and integrate digital responsibility within their teams and organisations.
- Establish national digital leadership standards or capability frameworks that define the skills, responsibilities, and expectations for those in digital leadership roles.
- Create a dedicated peer forum for digital leaders to share experiences, exchange best practices, and collaborate on common challenges in digital leadership.

2. PROJECT SCOPE AND SPECIFIC TASKS

This research project was commissioned by College Development Network with the objective of ensuring that the current digital skills capabilities and needs of staff in colleges are well understood, in order to frame any future provision to support the implementation of a refreshed National Digital Strategy for the college sector in Scotland. The research work commenced in April 2025 and the final report was completed by July 2025.

2.1 Project scope

The scope of the project is to look at the current understanding of staff digital capabilities and development needs in the sector as evidenced through the extent of college use of the JISC Digital Capabilities Framework, and the digital training resources available from sector and sector-adjacent agencies to enable staff to develop their skills.

The key project tasks are to:

- Review the current understanding of the digital capabilities of staff at all levels in the sector with specific reference to the use of the JISC Digital Capabilities Framework and related tools and any other relevant training needs assessments, undertaking new assessments if required to fill any knowledge gaps.
- Map the current availability of digital training resources both practical and strategic from sector and sector-adjacent agencies against the resources available through JISC Digital Capabilities Framework and identify any gaps in provision.
- Review the use being made by colleges of the JISC Digital Capabilities Framework and

2.2 Project Deliverables

The planned project outputs are a report containing:

1. An assessment of current digital skills capabilities and requirements in colleges as evidenced through the JISC Digital Capabilities Framework, highlighting the key areas where training and development are required and highlighting any variations by region or other relevant factors.
2. An assessment of the use being made by colleges of the JISC Digital Capabilities Framework and Digital Elevation Tool and the extent to which this could be further developed and supported to ensure the effective development of the digital skills of college staff from 2025-2030.
3. A mapping of available training provision from sector and sector-adjacent agencies against the JISC Digital Capabilities Framework noting level and cost and any overlaps or gaps.
4. An outline plan for supporting colleges via a digital programme approach to make effective use of the JISC Framework and the wider resources available in the sector while filling any gaps in provision.

This report does not present a detailed outline plan; instead, it identifies the key strategic elements that could form the foundation of such a plan. The recommendations in this report are submitted for the Strategy Oversight Group's consideration as they develop a comprehensive plan for the college sector.

2.3 Project Methodology

2.3.1 Design

This study is designed as *qualitative exploratory research* using semi-structured interviews. The rationale for this choice is that it combines a set of prepared open-ended questions with the flexibility to explore topics that emerged during the conversation. It encouraged a more natural dialogue, allowing interviewees to express themselves more fully and provide richer, more nuanced responses, leading to deeper insights. However, it is also acknowledged that this approach resulted in variation in coverage of all the aspects of the study objectives.

2.3.2 Participants

A total of 17 colleges participated in the study. These are listed in Appendix A and ranged from very large (over 1500 headcount staff) to small (~120 staff). The college staff interviewed (33 in total) and their role are listed in Appendix B. The schedule and initial questions used for the interviews are reproduced in Appendix C. Participants ranged from staff at Vice Principal or Director level to staff engaged in digital support. A few colleges fully supported the study objectives by making available

for interview two or more staff to cover the scope of strategy, implementation and both teaching and professional services staff. In others the interview outcomes depended on how familiar the interviewee was with all aspects of their college's approach to developing digital capabilities.

Representatives from sector and sector-adjacent agencies were also interviewed (7 in total) to establish their expectations as stakeholders in the development of the National Digital Strategy and the contribution their agency might make to the provision of resources suitable for use by colleges.

2.3.3 Desk Research

This included the compilation and analysis of information related to the training opportunities offered by sector agencies and other Scottish government agencies, such as DataLab and the Scottish Digital Academy. It also included examination of the published digital strategies of colleges and Scottish Government policies relating to the Digital Economy and Digital Skills Development.



3. CONTEXT FOR THE STUDY

The Scottish college sector is characterised by considerable diversity, encompassing a wide range of colleges. These include large, multi-campus colleges operating as tertiary education providers with substantial staff complements and significant funding, as well as smaller, often rural colleges that play a vital role in serving local communities.

This diversity directly shapes how digital technologies are adopted and integrated into both teaching and organisational practices in these colleges. The factors that shape a college's approach to digital include scale, resources, and the unique needs of its learners and communities.

3.1 Scale

Large, well-resourced colleges often have the capacity to implement sophisticated digital strategies, invest in advanced infrastructure, and lead sector-wide innovation. For example, they may develop dedicated digital strategy teams, provide extensive device distribution, and deliver comprehensive digital skills training for staff and students. Smaller or rural colleges face distinct challenges, such as limited resources and geographical barriers. However, these colleges often respond with creative, targeted solutions designed to meet the specific needs of their communities.

The list of colleges participating in the study is found in Appendix A, along with an indication of relative size. Initial desk research established the following context for the study:

Large-size colleges operate sophisticated, multi-layered systems with dedicated resources, comprehensive strategies, and structured learning pathways. They embed digital development within broader institutional strategies and can afford to invest in specialised teams to support their digital ambitions.

Intermediate size colleges take more focused approaches with specific targets and measurable objectives. They balance strategic planning with practical constraints, often following standardised platform policies and creating defined digital transformation goals.

Small-size colleges face significant resource constraints and typically operate reactive, informal approaches. They rely heavily on peer support networks and struggle to maintain formal digital strategies due to limited staffing and budget constraints.

3.2 Digital Strategies

Colleges vary in how they articulate their digital ambitions. Some publish detailed, standalone digital strategy documents, while others embed digital objectives within general strategic plans. Of the colleges reviewed around 40% have a clearly defined, standalone digital strategy, while the remainder incorporate digital aims within broader strategy documents, such as institutional plans, teaching strategies, or IT strategies.

Standalone digital strategies typically provide clear objectives and measurable targets (e.g., percentage of staff completing digital training), alignment with sector frameworks and governance and reporting mechanisms. Embedded digital strategies are more variable in scope and detail. Some embed digital as a cross-cutting theme but lack specific metrics or implementation plans related to staff development.

4. STAFF DIGITAL CAPABILITIES ASSESSMENT

4.1 Introduction

This section examines how colleges across Scotland identify, assess, and develop staff digital capabilities. Based on evidence from multiple colleges, it reveals a sector in transition, moving from ad-hoc, system-driven approaches toward more strategic, comprehensive frameworks for digital capabilities development. The findings highlight significant variation in approaches, from colleges with no formal assessment mechanisms to those implementing sophisticated, integrated systems linking digital capabilities assessment to professional development processes.

The digital transformation of education has made staff digital capabilities a critical factor in college success. Colleges must balance the need to understand their staff's current digital competence with the challenge of providing relevant, targeted development opportunities. This section synthesises evidence from multiple colleges to provide insights into current practices, challenges, and emerging good practices in digital capabilities assessment and development.

4.2 Current State of Digital Capabilities Assessment

4.2.1 Range of Approaches

The research reveals a wide range of approaches to digital capability assessment across the sector. A few colleges have no formal assessment mechanisms in place, relying instead on informal feedback and reactive responses to identified needs. In contrast, some colleges have developed comprehensive, integrated systems that combine

assessment, development planning, and progress tracking.

One college exemplifies the minimal approach, with staff noting that “*we don't assess where people are*”, instead relying on feedback from line managers or staff self-identifying skill gaps. This reactive approach is common among smaller colleges or those in the early stages of digital transformation.

As an example of colleges that have developed sophisticated assessment frameworks, one college had created a custom framework with department-specific questions and had achieved 100% completion among support staff. The questions were tailored to specific software used in each department, providing insights into staff confidence and training needs.

4.2.2 Self-Assessment

Across the sector, self-assessment emerges as the predominant method for evaluating digital capabilities. This approach is favoured for its non-threatening nature and ability to engage staff in reflective practice. However, many colleges expressed significant concerns over the reliability of a self-assessment approach to digital capabilities.

One college noted that staff exhibited “*over-self-assessment of their skills*” when using a digital capabilities discovery tool, leading to training suggestions that were inappropriate for the individual. Another college digital services manager stated that self-assessment is “*not really a reliable way*” to determine staff digital capabilities, indicating a preference for more objective methods.

Despite these concerns, self-assessment remains popular due to its alignment with adult learning principles and its role in encouraging staff ownership of their development journey. It is also the de-facto model in use for school teachers in Scotland and staff in the National Health Service (NHS) in Scotland.

4.2.3 Tools and Frameworks in Use

The research found that colleges deploy a variety of frameworks and tools to establish the training and development requirements of staff, particularly teaching staff.

4.2.3.1 The Jisc Discovery Tool: Promise and Challenges

The Jisc Discovery Tool emerges as the most commonly referenced external framework across institutions. However, its implementation reveals a complex picture of both adoption and resistance.

Several colleges have adopted the Jisc tool as part of their strategic approach to digital capabilities assessment. One college plans to use it to “*survey staff every year*” to understand current capabilities, then respond by directing staff to immediate training, and examine longer-term trends. The tool is seen as valuable for “*pushing people towards training*”, bridging the gap between acknowledging need and directing staff to specific resources.

However, the tool also faces significant challenges. Multiple colleges report low participation rates, with one large college noting “*very low uptake*” in recent years. Terminology used in certain aspects of the Jisc tool and resources was viewed in some colleges as insufficiently congruent with FE practice and vocational learning.

Technical and practical issues can also hamper adoption, such as difficulty in integrating the Jisc Discovery tool into college systems. A few colleges reported difficulties in obtaining business information to guide decision making in relation to staff training needs.

4.2.3.2 Bespoke Internal Tools

In response to perceived limitations with external tools, many colleges have developed their own assessment mechanisms. These internal tools often show greater success rates and staff engagement, primarily due to their alignment with institutional contexts and systems.

One college developed a comprehensive approach using their Learning Management System, creating two tailored tools aligned with the CDN Digital Capabilities Framework – one for all staff and a specialised version for teaching staff. This checklist-based self-assessment breaks down capabilities into practical tasks, such as “*I can add an image to a document,*” allowing staff to identify gaps and access immediate learning resources.

Another college created a custom digital competency framework that achieved remarkable success, with 100% completion among support staff. The framework’s success was attributed to its department-specific questions tailored to the actual software and systems used by college teams.

4.2.3.3 Hybrid Approaches

Some colleges have adopted hybrid approaches, combining multiple tools and methods. One college uses both their custom digital competency framework and the Jisc Discovery Tool, with plans to potentially merge the two approaches to obtain comprehensive data.

This strategy allows colleges to capture both standardised benchmarking data and context-specific insights, though it requires careful management to avoid assessment fatigue among staff.

4.3 Integration with Professional Development Processes

4.3.1 Professional Review and Development (PRD) Integration

The integration of digital capability assessment with formal professional development processes varies significantly across colleges. Some colleges have successfully embedded digital capabilities as core components of their PRD processes, while others maintain them as separate, optional elements.

One college demonstrates effective integration by conducting annual reviews that incorporate a digital element, with staff consistently asked about their progress in developing digital skills. This serves as a formal mechanism for tracking and reviewing individual digital competence over time.

Another college has transformed its approach from annual, rigid PRD processes to more agile, ongoing approaches for digital capabilities. Its new strategy involves embedding digital capabilities as core objectives in PRDs, moving to more frequent check-ins, and encouraging managers to actively discuss digital skills development with staff.

4.3.2 The Role of Managers

Manager engagement emerges as a critical factor in successful digital capability development. Colleges with effective programmes consistently highlight the importance of manager support and their role as “*change agents*” in driving digital adoption.

One college emphasised that manager support is crucial for enabling change, with individual sections or departments able to drive their own digital development and training needs. The college notes that its managers meet with People Services teams regularly to review CPD requirements, allowing them to identify specific digital capability needs and arrange bespoke training packages.

However, not all colleges have achieved effective manager engagement. Some report that digital development discussions in PRD processes are inconsistent, varying by manager and staff self-direction.

4.4 Approaches to Staff Development

4.4.1 Tiered Development Models

Several colleges have adopted tiered approaches to digital capabilities development, recognising that different staff members require different levels of digital competence based on their roles and career aspirations.

One college implements a three-tier model:

- *Essential level*: Baseline digital skills for all staff, with concrete tasks like creating presentation slides that conform to accessibility standards.
- *Proficient level*: For staff wanting to develop more advanced skills
- *Expert level*: For staff who aspire to be digital champions and support others

This approach allows for differentiated development while maintaining minimum standards across the college. The model’s success lies in translating abstract framework capabilities into specific, role-relevant tasks.

4.4.2 Personalised and Contextualised Support

The most successful programmes emphasise personalised, contextualised support over generic training offerings. Colleges report that practical tools introduced in ways that directly relate to subject or technical teaching contexts are more effective than generic training sessions.

One college's approach focused on working with curriculum heads to tailor support, moving away from assuming staff needs and instead building support around expressed demand. This responsive, practitioner-focused model reflects an evolving strategy rooted in flexibility and respect for disciplinary context.

Another college demonstrated personalised support through their Digital Leads conducting individual skill assessments during induction, understanding each staff member's background and specific needs, and providing one-on-one support tailored to specific job roles. This theme of personalised support was most pronounced in smaller colleges, where this approach was favoured over the use of a generic tool to identify training and support needs.

4.4.3 Micro-Learning and Just-in-Time Support

Many successful programmes have adopted micro-learning approaches, recognising the time pressures facing college staff. Evidence strongly suggests that short, targeted training resources are more successful than comprehensive programmes.

One college creates "*short, targeted screencast training (2-3 minute videos)*" and has developed role-specific digital pathways. Another college uses "*short instructional videos (2 minutes max)*" to teach specific digital skills as part of their onboarding process.

The principle of "*provide a guide for everything*" is adopted by one college, with staff expected to consult documentation as their first protocol when encountering problems. This approach implicitly measures staff competence by observing their ability to find and apply documented information independently.

4.5 Challenges and Barriers

4.5.1 Low Engagement and Participation

Low engagement emerges as a persistent challenge across colleges. Multiple colleges report poor attendance at open CPD sessions and low participation rates in formal assessment tools. Time pressures and competing priorities are consistently cited as barriers to engagement.

One college notes that "*CPD sessions made available to all staff are often poorly attended*" due to time pressures and prioritisation challenges, particularly for generic training. Another college reports that the Jisc Elevation Tool survey coincided with other institutional surveys, leading to poor response rates.

4.5.2 Cultural and Psychological Factors

Colleges recognise that cultural and psychological factors significantly complicate digital capabilities development. Staff confidence levels vary dramatically, from highly confident digital practitioners to those who are resistant or anxious about technology.

One college notes that "*staff range from highly confident digital practitioners to those resistant or anxious,*" recognising that these factors complicate formal capability assessments. Another college identifies a "*vicious circle*" where lack of knowledge prevents engagement with development opportunities.

4.5.3 Relevance and Context

The relevance of available tools and training to college contexts emerges as a significant barrier. Multiple colleges question whether external frameworks adequately address college-specific needs and contexts.

The challenge of making training practical and immediately applicable is consistently highlighted. Colleges report that generic external training is less effective than contextualised, role-specific development opportunities.

4.6 Emerging Good Practices

4.6.1 Comprehensive Integration Models

The most successful approaches demonstrate comprehensive integration of assessment, development, and support mechanisms. One exemplary model includes:

- Custom digital capability tools integrated into the college's LMS
- Direct linkage between results of digital capabilities assessment and learning resources
- Manager dashboards for oversight and targeted support
- Integration with formal review processes
- Learning needs analysis to map organisational competence levels

This integrated approach ensures that assessment leads directly to development opportunities and that progress can be monitored and supported at both individual and college levels.

4.6.2 Community-Based Development

Several colleges have developed community-based approaches to digital capabilities development, recognising that peer learning and support can be more effective than top-down training programmes.

One college has established AI champions in each department, creating a network of expertise and support throughout the college. Another college emphasised communities of practice and collaborative support over a "one-size-fits-all" approach.

4.6.3 Onboarding and Induction Integration

Successful programmes consistently integrate digital capabilities assessment and development into onboarding processes for new staff. This approach ensures that digital development becomes part of the institutional culture from the beginning of employment.

One college's approach includes creating an online portal with essential information, providing dedicated time for new staff to learn digital skills, offering personalised demonstrations of key tools, and ensuring managers are trained to support new staff effectively.

4.7 Gaps in training and development

Across the study three areas emerged where colleges indicated that they would welcome more directed support. These were: AI in Education; Accessibility and Data Analytics. In all other aspects of the deployment of digital approaches in colleges, including cybersecurity awareness, it would appear that there are sufficient resources, whether internal or externally sourced, to meet identified needs.

The requirement for training in AI, encompassing both an understanding of AI and the development of practical skills in the use of AI tools, was expressed by both teaching and professional services staff. In the former case the focus would be on leveraging AI to improve the student experience in teaching, learning and assessment. The need for clarification in relation to assessment is particularly acute.

In relation to data skills, both professional services staff and curriculum managers expressed a need to become proficient in using dashboards such as provided by PowerBI and similar tools, as well as a better understanding of how to use data to drive decision-making. In some colleges there was a strong push from senior leaders to have a greater focus on data, which also raised questions around data ethics and a need for guidance on this matter.

In relation to cyber safety, colleges have made it mandatory for all staff to undertake training in data privacy and safe internet practice and incorporated cybersecurity awareness in staff induction processes. IT infrastructure teams in colleges valued the extensive support provided by Jisc in relation to cybersecurity, as well as employing external consultants to formulate their cybersecurity policies. One large college suggested that the sector would benefit from a uniform approach to cybersecurity, which could potentially lower costs while facilitating the exchange of information and case studies across the sector.

In colleges where there has been a recent (i.e. post Covid-19) change of platform for their LMS, it was noted that a high proportion of available resources for digital upskilling had been devoted to helping staff move to the new platform and leverage the expanded LMS capabilities to improve their planning and assessment as well as the student experience of teaching and learning.

Staff who wished to explore the use of tools other than those sanctioned or licensed for use in the college were generally not provided for and had to rely on their own initiative and effort to locate suitable training and support using platforms such as LinkedIn Learning, Coursera and EdX.

4.8 Conclusion

The landscape of digital capabilities assessment and development in colleges is characterised by significant variation in approaches, tools, and levels of integration with professional development processes. While challenges around engagement, relevance, and resource constraints persist, emerging good practices demonstrate that effective approaches are possible. The most successful colleges combine strategic vision with practical implementation, recognising that digital capabilities development must be personalised, contextualised, and integrated into the fabric of institutional culture.

The evidence suggests that success depends not on the sophistication of tools used, but on the quality of implementation and the degree to which initiatives are embedded in college culture and practice. Overall colleges showed limited interest in a sector-wide digital capabilities framework. While some noted that such frameworks have value in that they give validity to the use of locally devised frameworks, in practice colleges are finding greater value in defining capabilities in the context of local college context and systems.

5. DIGITAL CAPABILITIES TRAINING AND RESOURCES

5.1 Introduction

This section examines how staff across Scottish colleges access training and resources to develop their digital capabilities. The digital transformation of higher and further education has accelerated dramatically, making staff digital capabilities essential for effective teaching, learning, and college operations. This report synthesises evidence from interviews across multiple Scottish colleges to understand current provision, identify effective practices, and highlight areas for improvement in supporting staff digital capabilities development.

The findings highlight significant variation in the quality and accessibility of digital capabilities support across the sector, with particular disparities between support for teaching staff versus professional services personnel. While some colleges have developed sophisticated frameworks for digital capabilities development, others prefer to rely on informal peer-to-peer learning and reactive training provision.

Many colleges noted significant challenges in maintaining support for digital capabilities development due to resource constraints. These included limited budgets for externally sourced training and availability of staff time for engagement. Another challenge lay in keeping resources current, with software functionality and user interfaces changing on a frequent basis and weblinks in curated lists going out of date.

5.2 Current Landscape of Digital Capabilities Support

5.2.1 Organisational Structures and Approaches

The colleges interviewed demonstrate varying levels of organisational commitment to digital capabilities development. Some have established dedicated teams with clear responsibilities, while others integrate digital support within broader professional development frameworks.

5.2.1.1 Dedicated Learning Technology Teams

Several colleges have invested in specialised learning technology teams to support staff development. One college employs “*a dedicated team of three learning technologists who develop digital teaching materials using platforms like Moodle, Articulate, H5P, and ClickView.*” These teams not only provide technical support but also facilitate access to external resources and maintain relationships with content providers.

Another college has created a unified approach where “*Learning Development and Learning Technology staff work closely as a unified team, spanning all four campuses and supporting approximately 600 staff.*” This model demonstrates how scale and coordination can be effectively managed across multiple sites. On the other hand, several smaller colleges were unable to resource this type of role, which limited progress in the introduction and spread of good practice in digital pedagogy.

5.2.1.2 Integrated Professional Development Models

Some colleges have integrated digital capabilities development within their broader professional development frameworks. One college has established a Staff Development Academy (SDA) to *“provide structured access to training and development for both academic and professional services staff”* along with a formal approval route for training requests that *“ensures equitable access, with most low-cost applications approved.”*

5.2.1 Access Mechanisms and Pathways

The mechanisms through which staff access digital capabilities training vary considerably across colleges, ranging from self-directed learning platforms to highly structured, role-specific programmes.

Many colleges provide universal access through Learning Management Systems (LMS) such as Moodle, Brightspace or Canvas. One college offered universal access to resources via its LMS, where *“All staff – academic and professional – can access digital learning resources anytime through the college’s LMS.”* This approach supports flexible learning by allowing staff to *“manage their own learning diaries and access digital CPD as and when needed.”*

The preference for flexible, just-in-time learning is evident across multiple colleges. As one college noted, it favoured *“producing ‘quick and dirty’ screencasts and short videos rather than complex, time-consuming training packages. This approach allows for timely updates and practical, just-in-time learning.”*

5.2.2 Structured Induction and Assessment Programs

Some colleges have developed comprehensive induction programs that embed digital capability development from the outset. One college’s approach includes an induction process that covers key digital essentials: Artificial intelligence, Cyber essentials and Document sharing. Another college provides induction that comprises *“Online courses covering all college systems”* and *“Fully documented guides for each system.”*

Another college has implemented a systematic assessment approach: *“Self-assessment tool integrated into Professional Review and Development (PRD) process”* which *“Identifies individual digital capability gaps”* and *“Allows personalised development planning.”*

5.3 Resources and Support Mechanisms

5.3.1 Internal Resource Development

Colleges have adopted various strategies for developing internal training resources, with many favouring short, practical materials over comprehensive training courses.

5.3.1.1 Microlearning and Bite-Sized Content

The trend toward microlearning was evident across multiple colleges. One college had implemented a *“Two Minute Tuesdays”* video series alongside short, focused training videos (2-3 minutes) that were practical with workflow-oriented content. This approach recognised that busy staff need *“Resources covering multiple digital tools”* that can be consumed quickly and applied immediately.

Another college has developed “*Mini Bites sessions: short, peer-led lunchtime or early evening workshops focused on specific digital skills or tools*” which complemented its on-demand support where staff were encouraged to contact the Learning Development team directly without having to use a ticketing system.

5.3.1.2 Context-Specific Materials

Many colleges have recognised the limitations of generic training materials and have invested in creating context-specific resources. One college noted that “*Learning technologists have authored guides tailored to college context (e.g. assistive tech, digital accessibility)*” while acknowledging that “*External resources are sometimes too generic and not always aligned with college-specific systems and workflows.*”

5.3.2 External Resource Utilisation

Colleges make extensive use of external resources, though with varying degrees of curation and integration.

5.3.2.1 LinkedIn Learning and Commercial Platforms

LinkedIn Learning appears to be the most commonly used external platform, though implementation varies significantly. One college provides “*LinkedIn Learning with curated playlists for specific roles*” including support staff, assessors, lecturers, and technicians, while another simply makes LinkedIn Learning “*Available to all staff via their SharePoint login*” with “*No systematic promotion or training on how to use LinkedIn Learning.*”

5.3.2.2 Specialist Providers and Partnerships

Some colleges have developed relationships with specialist providers for specific needs. One college has engaged the Scottish AI Alliance to provide specialised AI training tailored to practical, role-based applications, while another college worked with commercial training providers, Microsoft 365 self-certification options and specific courses for different digital tools.

5.4 Role-Based Approaches and Differentiation

5.4.1 Teaching Staff vs Professional Services

A significant finding across colleges is the disparity in support provision between teaching staff and professional services personnel.

5.4.1.1 Teaching Staff Support

Teaching staff generally receive more structured and comprehensive support. One college reported that “*Most formal support for digital skills is aimed at teaching and learning – creating engaging online content, using the VLE, and integrating digital tools into pedagogy.*” This includes access to resource guides, attendance at workshops, and use of platforms like TeacherMatic and Blended Learning Consortium (BLC) content. Another college focused on academic staff as the “*Main focus of LTA support and training activity providing access to all resources, mentoring, and curriculum-embedded development.*”

5.4.1.2 Professional Services Gaps

Professional services staff face significant challenges in accessing relevant training. One college acknowledged that “*There’s less structured support for professional services staff, especially regarding business systems (e.g., Attendance registers, HR, Finance, Health and Safety systems).*” The training available is often “*informal – new staff may learn by shadowing colleagues rather than through formal, role-specific training.*”

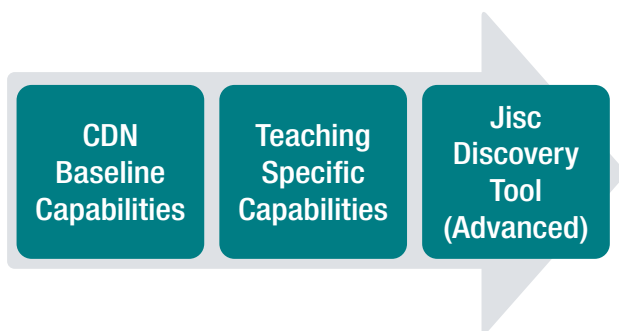
This gap is recognised as a sector-wide issue, with one college noting that “*business systems training is a ‘Cinderella’ area – often overlooked and not prioritised in learning and development plans.*”

5.4.2 Emerging Role-Specific Pathways

Some colleges are developing more sophisticated role-based approaches to digital capabilities development.

5.4.2.1 Competency Frameworks and Progression Paths

One college has implemented a progressive structure where teaching staff are encouraged to use these resources to move through these stages of their development in digital capabilities:



Professional services staff also begin with the same CDN Baseline, followed by support in the use of role-relevant tools as well as skills in using digital essentials, such as devices, networks, and document creation.

One college has developed “*role-specific digital competency frameworks*” with plans to “*Link digital skills directly to job performance*” at various skill levels: Bronze, Silver, Gold.

5.4.3 Curated Pathways

The provision of curated learning pathways varies significantly across colleges, with some colleges developing sophisticated systems while others rely on ad-hoc resource sharing.

5.4.3.1 Advanced Curation Models

One college has developed a comprehensive curated resource with custom filters for flexibility. Its LMS allows users to filter training by type (e.g., self-directed, formal, observation-based) and duration (e.g., <5 mins, 15-30 mins), to accommodate staff members’ busy schedules. This is combined with an extensive Learning Catalogue that includes microlearning (e.g., 3-5 minute tutorials), structured courses (e.g., Excel, Power BI, hybrid teaching), and materials for beginners through to advanced levels.

5.4.3.2 Emerging Curation Initiatives

Several colleges are in the process of developing more structured approaches. One college is creating “*curated playlists of resources or other collections*” with “*Planned use of examples from curriculum teams to illustrate ‘what works and why’ as part of a good practice initiative.*”

Another college is developing a Staff Learning Academy (SLA) that will serve as a repository of curated development resources to “*centralise high-quality, approved learning materials*” and “*will include resources tailored for topics such as AI, ethical data use, and safe digital practices.*”

5.4.4 Personalisation Strategies

Colleges are increasingly recognising the need for personalised learning approaches that respond to individual staff needs and contexts. The following approaches were noted.

5.4.4.1 Assessment-Driven Personalisation

Several colleges use assessment tools to drive personalised learning. One college implements *“Baseline Capability Tools: Both academic and professional staff use self-assessment tools (aligned with CDN Digital Capabilities) to identify their starting point and receive tailored training suggestions.”*

Another college uses *“A digital competencies framework with department-specific software questions”* alongside *“A professional review and development process that identifies training needs annually.”*

5.4.4.2 Flexible Support Models

The most effective colleges have developed flexible support models that can respond to individual needs. One college Learning Technology team operates a ‘service-first, open-door’ model where staff are actively encouraged to seek support *“without hesitation or bureaucracy”*, combined with *“one-to-one coaching: Staff with specific or urgent needs (e.g. adapting to a new platform) are offered direct coaching.”*

5.5 Effective Practices and Innovation

5.5.1 Peer-to-Peer Learning Models

Many colleges have recognised the value of peer-to-peer learning and have developed systems to facilitate knowledge sharing among staff.

5.5.1.1 Champions and Mentoring Programs

One college has established *“A database of Digital Champion Mentors that can be searched for areas of expertise (e.g., Excel, hybrid delivery)”* alongside an ‘Ask the Expert’ platform for submitting queries about tools or techniques that are then answered by subject matter experts (SMEs). This created a sustainable model where expertise is shared across the college.

Another college uses *“Peer-Led Learning”* where *“The college identifies and encourages internal champions or skilled staff to deliver informal peer-to-peer training”* including *“Brightspace champions and internal expertise in Outlook being harnessed for future sessions.”*

5.5.1.2 Communities of Practice

Some colleges have developed internal communities of practice to support ongoing learning. One college has created a *“Digital community Teams channel for peer support”* where *“Staff can ask questions and get help from colleagues”* with *“Recorded resources available for those who cannot attend live sessions.”*



5.5.2 Innovative Delivery Methods

Colleges are experimenting with various delivery methods to maximise engagement and effectiveness.

5.5.2.1 Embedded and Contextual Learning

The most effective approaches integrate digital capabilities development within existing work contexts. One college uses “*Curriculum-Embedded Development*” with “*Increasing emphasis on partnerships with curriculum heads to identify specific local needs*” where “*Learning technologists and development staff provide targeted support in response to these needs.*”

Another college noted that “*Development sessions intentionally model the student experience. Staff attending training use the VLE and digital tools as learners, which boosts their ability to replicate these methods in their teaching.*”

5.5.2.2 Just-in-Time Support

Several colleges have developed systems for providing immediate support when needed. One college offers “*Technology as Enabler of Equality*” where “*Staff can quickly share screens, chat, or call Learning Development colleagues in real time, even during classroom sessions, which has reduced dependence on slower helpdesk processes.*”

5.6 Challenges and Barriers

5.6.1 Resource Constraints and Sustainability

Many colleges face challenges in maintaining digital capabilities support due to resource constraints. The diversity of staff roles across colleges also creates complex challenges for training design and delivery. Digital skills needs vary dramatically between teaching staff, who focus on pedagogical applications and LMS use, and professional services staff who require proficiency in business systems.

5.6.1.1 Budget Limitations

One college noted that “*Higher-cost requests for training, such as external provision of training, undergo a cost-benefit analysis to evaluate potential impact and value*”. This involves consideration of in-house alternatives first to manage budget constraints. This constraint affects the ability to access comprehensive external training opportunities.

5.6.1.2 Staff Capacity Issues

The challenge of staff time and capacity is evident across colleges. One college observed that “*a key challenge is driving staff to these resources, as they are often too busy to proactively seek them out.*” Staff consistently cite lack of time as the primary obstacle to engaging with digital development opportunities. As one college observed, “*Staff are often too time-poor or overburdened to attend open, catch-all digital training sessions.*” This challenge is exacerbated by the fact that digital training often competes with other mandatory training requirements (such as Equalities and Health & Safety) and core job responsibilities.

5.6.2 Technology and Infrastructure Challenges

Colleges face ongoing challenges with technology infrastructure and system complexity.

5.6.2.1 System Integration Issues

One college acknowledged that “*Large, generic training courses are often overwhelming. We favour small, task-specific guides and quick-reference materials that are searchable and actionable.*” This reflects the challenge of managing complex technology ecosystems while providing accessible training.

5.6.2.2 Maintenance and Currency

The challenge of keeping resources current is significant, in part due to the rapid pace of technological change, particularly in areas like artificial intelligence (AI). One college noted concerns that “*curated playlists quickly become outdated due to frequent UI and feature changes in tools like Microsoft 365.*” This highlights the ongoing resource commitment required for effective digital capabilities support.

5.6.2.3 Tool Proliferation and Standardisation Issues

Many colleges reported challenges related to proliferation of digital tools and platforms. Staff were often “*using multiple platforms and tools independently, causing confusion for learners and creating management difficulties.*” This fragmentation creates additional training burdens and inconsistent user experiences

5.7 Sector-Wide Patterns and Implications

5.7.1 Strengths in Current Provision

Several positive patterns emerge from the analysis that represent sector strengths:

5.7.1.1 Commitment to Staff Development

There is clear evidence of college commitment to staff digital capabilities development across the sector. The investment in learning technology teams, the development of internal resources, and the recognition of the importance of digital capabilities all demonstrate this commitment.

5.7.1.2 Innovation in Delivery Methods

Colleges are actively experimenting with new approaches to training delivery, from microlearning to peer-to-peer models, showing adaptability and responsiveness to staff needs.

5.7.1.3 Recognition of Differentiated Needs

There is growing recognition that different staff groups have different digital capabilities needs, with some colleges beginning to develop more sophisticated, role-based approaches.

5.7.1.4 Demand-led training

The most effective training interventions appear to be those that are closely aligned with immediate work needs and embedded within existing workflows. Several colleges have shifted from generic training offerings to “*demand-led, curriculum-embedded*” models of support.

5.8 Conclusion

The analysis reveals a sector in transition, with colleges at various stages of developing comprehensive approaches to staff digital capabilities development. While significant progress has been made, particularly in supporting teaching staff, substantial challenges remain in ensuring equitable access to appropriate development opportunities across all staff groups.

The most successful colleges combine strategic commitment with flexible delivery, role-specific provision with peer learning, and internal resource development with effective use of external resources. However, the sector would benefit from greater collaboration in resource development and sharing of effective practices.

Moving forward, the sector should focus on developing more equitable provision across all staff groups, adapting and implementing systematic pathways for capability development, and fostering greater collaboration in resource development and sharing.

6. BUILDING A SUPPORTIVE DIGITAL CULTURE

6.1 Introduction

The development of digital capabilities across colleges requires a fundamental shift from compliance-based training to culture-based transformation. Evidence from multiple Scottish colleges demonstrates that successful digital capabilities development depends on creating psychologically safe environments where staff feel supported, respected, and empowered to develop at their own pace. The most effective approaches combine strategic leadership commitment with personalised, relationship-based support that addresses individual anxieties and barriers.

6.2 Creating a Foundation for Digital Confidence

6.2.1 Strategic Integration

Successful colleges demonstrate that digital capabilities development must be embedded within broader institutional strategies rather than treated as a standalone initiative. One college's "*digital first*" ethos and another's visible leadership by the college principal exemplified how senior leadership commitment creates institutional momentum. The most effective approaches integrate digital objectives into existing frameworks including:

- Continuous improvement strategies
- Leadership development programmes
- Operational planning processes
- Staff recruitment and induction

Strategic integration helps normalise digital capabilities development as part of professional practice rather than an additional burden. As one college demonstrated, "*embedding digital*

skills within broader college strategies and daily operations" made them a normal part of everyone's work rather than a "*special or intimidating initiative*." This approach was specifically designed to reduce anxiety and resistance by removing the perception that digital skills are extra or separate requirements.

6.2.2 Establishing Psychological Safety

The foundation of an effective digital culture is psychological safety – environments where staff can admit knowledge gaps, ask questions, and experiment without fear of judgment. One college's explicit policy that "*no question is stupid*" coupled with an open-door approach to requests for support demonstrates how colleges can create emotionally safe learning environments. The evidence shows this approach is most helpful to staff "*coming from vocational or industry backgrounds, who are recognised as more likely to have digital gaps*." Some colleges noted that developing digital confidence quickly for new entrants is an important factor in staff retention.

Key elements of psychological safety include:

- **Non-judgmental support:** Staff are explicitly told that seeking help is professional development, not a weakness.
- **Confidential assistance:** Support is offered privately to avoid embarrassment.
- **Patience with repetition:** Staff who need repeated help with the same concepts are supported without criticism.
- **Empowerment over instruction:** Staff are encouraged to explore and experiment with support available.

One college's approach of "*positioning digital around what it offers rather than what it comprises*" demonstrates how framing technology as enhancement rather than replacement helps "*reduce defensive reactions*" from staff who may fear their traditional methods of teaching delivery are being undermined.

6.3 Addressing Anxiety and Resistance

6.3.1 Understanding the Roots of Resistance

Colleges report varied sources of staff anxiety and resistance, requiring differentiated approaches. The evidence reveals several key patterns:

- **Time and Workload Pressures:** Staff are described as "*very, very busy*" and often "*haven't had chance or haven't had time*" to seek out training themselves. One college identified that "*high workloads and shrinking teams make it difficult for staff to prioritise digital development amidst operational pressures.*"
- **Fear of Being Left Behind:** Staff anxiety may stem from "*a sense of having missed the boat,*" particularly with established systems. This creates a specific challenge requiring gentle re-engagement strategies rather than catch-up pressure.
- **Generational and Career Stage Factors:** The evidence shows "*resistance is particularly noted among long-serving staff nearing retirement who may be less inclined to adapt to major changes.*" This requires approaches that respect experience while offering voluntary support.
- **Subject Area Culture:** Different curriculum areas have distinct technology cultures. One college reports that "*business and digital departments are highly skilled*" while "*trades and engineering departments are more difficult to engage,*" demonstrating the need for tailored approaches.

6.3.2 Effective Strategies for Reducing Anxiety

6.3.2.1 Low-Barrier Entry Points

The most successful colleges create multiple, accessible pathways for staff to begin digital development. One college reported success by "*requiring all lecturers to have just two units online was used as a low-barrier 'line in the sand' to encourage initial engagement without overwhelming staff.*" This approach specifically "*recognises the need for momentum without imposing unrealistic expectations.*"

Additional low-barrier strategies include:

- **Voluntary Self-Assessment:** Tools introduced as a means for staff "*to self-reflect and identify their own needs, with no punitive follow-up*" which respects individual autonomy and reduces fear of being judged.
- **Short, Practical Resources:** Brief screencasts and guides that are "*less daunting and allow staff to learn at their own pace, focusing on immediate needs*".
- **Quick Wins:** Simple demonstrations that show immediate practical benefit.

6.3.2.2 Personalised and Relational Support

Evidence consistently shows that relationship-based support is more effective than standardised training. One college's approach of having "*learning technologists who provide hands-on support*" demonstrates how 'shoulder-to-shoulder' support helps staff feel less isolated when tackling new technologies.

The relational approach is explicitly described as "*intentionally relational, not transactional*" where "*trust and interpersonal relationships between Learning Development staff and individual team members are seen as key enablers of growth.*" This directly addresses the finding that staff need personalised, non-judgmental engagement to build confidence.

6.3.2.3 Practical Demonstration Over Abstract Training

Several colleges report success with contextualised approaches. One college's strategy of *"demonstrating technologies in shared workspaces"* allows *"curious staff to learn informally"* through what they term passive learning that reduces anxiety by removing formal training pressure.

Another effective approach focuses on showing *"how to do aspects of your job on the new system"* rather than providing comprehensive system feature training. This directly addresses staff concerns by maintaining relevance to their existing work patterns.

6.4 Overcoming Reticence and Building Engagement

6.4.1 Moving Beyond Compliance

The most successful colleges explicitly reject punitive approaches. One college's strategy of *"deliberately avoiding making digital development mandatory or punitive"* reflects understanding that *"forced training can breed resentment or anxiety, so participation is encouraged but not enforced."*

The evidence shows that targeting *"staff who feel they 'should already know this'"* requires creating cultures where *"continuous learning is normalised"* and gaps are treated as opportunities rather than deficiencies. This approach directly addresses the barrier that *"shame and embarrassment"* might create for staff development.

6.4.2 Peer Influence and Social Learning

Evidence demonstrates that peer influence often proves more powerful than top-down instruction. One college reports that *"once construction staff saw the value of digital quizzes, peer interest grew organically and uptake spread across campuses."* This organic spread through *"exposure to enthusiastic peers"* proved to be more effective than formal training programmes.

In many colleges the strategy of using *"staff who are not 'digital gurus' to spread the word around digital tools"* makes *"learning feel more approachable"* because it removes the perception that digital skills require specialist expertise.

6.4.3 Gradual Cultural Transformation

Successful colleges recognise that culture change requires sustained effort. The evidence shows that some colleges *"acknowledge that some staff will never fully engage"* and continue to *"support them anyway"* without creating pressure or criticism. This patient approach prevents the development of oppositional attitudes.

One college demonstrates how *"initial successes generate further interest"* creating a *"flywheel effect"* where *"when staff see successful digital transformations in other areas, they are motivated to explore similar possibilities."* This shows how momentum builds over time through demonstrated success rather than imposed requirements.

6.5 Structural Support Systems

6.5.1 Professional Development Integration

The most effective colleges integrate digital capabilities development into existing frameworks rather than creating separate initiatives. The evidence shows that incorporating *"digital skills elements into regular performance discussions"* normalises development as part of professional growth rather than additional burden.

One college's approach of using *"self-directed goal setting that allows staff to identify their own digital development priorities"* demonstrates how respecting individual autonomy increases engagement while maintaining institutional direction.

6.5.2 Resource Accessibility and Design

Successful colleges carefully design resources to minimise barriers. The evidence emphasises that *“having resources just sitting there doesn’t help people”* and that colleges should *“gently push people towards”* relevant content. This leads to strategies like microlearning that provides *“short, focused content that respects time constraints.”*

The finding that staff are *“unlikely to go and click around and find exciting training”* demonstrates one reason why *“just-in-time support available when needed rather than scheduled training”* is the more effective approach.

6.5.3 Community Building

Several colleges emphasise learning communities as an essential element in their support infrastructure. The evidence shows that *“communities of practice where staff learn from colleagues”* help *“normalise digital learning”* and *“reduce stigma around ‘not knowing.’”* These communities provide *“safe spaces for asking questions and sharing solutions”* that complement individual support. These communities of practice can be focused on a particular college system (e.g., Student Records, LMS) or at faculty or department level (e.g., Health & Social Care).

6.6 Measuring Success and Sustainability

6.6.1 Cultural Indicators

Colleges measure cultural change through behavioural indicators that demonstrate genuine engagement rather than compliance. One college reports that *“a lot of the drive for change we see coming from the staff teams now”* rather than top-down pressure, indicating that *“staff themselves are initiating ideas and seeking improvements.”*

Another indicator is the elimination of resistance behaviours. One college notes that calls from staff to *“bring back paper registers”* are long gone, demonstrating a shift from resistance to acceptance and efficient system use.

6.6.2 Continuous Improvement

The evidence shows that when new tools prove popular, colleges quickly expand access and organise dedicated training. This demonstrates responsiveness and shows staff that their interests and needs are heard and acted upon, thus creating positive feedback loops that sustain cultural development.

6.7 Conclusion

The evidence demonstrates that building a supportive digital culture requires sustained commitment, patience, and recognition that institutional change happens through individual transformation. Colleges that combine strategic leadership with empathetic, personalised support create environments where staff feel empowered to develop their digital capabilities as part of their professional growth.



7. DIGITAL LEADERSHIP: SUPPORTING STAFF DIGITAL CAPABILITIES DEVELOPMENT

7.1 Introduction

The evidence from the study reveals that digital leadership in Scottish colleges manifests itself through diverse models, ranging from highly distributed collaborative approaches to more centralised strategic frameworks. While some colleges demonstrate exemplary practice in embedding digital capabilities throughout their organisational structures, a few acknowledge significant gaps in digital leadership capacity. The effectiveness of digital leadership appears strongly correlated with the degree to which it is embedded across multiple management levels and integrated into core institutional strategies.

7.2 Models of Digital Leadership

7.2.1 Distributed Leadership Models

Several colleges have adopted distributed leadership approaches that embed digital responsibility across multiple organisational levels. These models demonstrate particular strength in creating sustainable, culturally embedded digital transformation.

- **Collaborative Partnership Approaches** One college exemplifies this through what they describe as “*collegiate and partnership-oriented*” leadership that is “*relational and inclusive, prioritising collaboration over command.*” Their approach is characterised as “*values-driven rather than compliance-based,*” focusing on improving student experience rather than

enforcing technology adoption. This model ensures that “*digital capabilities are framed as enabling inclusive, flexible and high-quality learning, rather than as technical requirements.*”

- **Cross-Functional Integration** Another college demonstrates effective distributed leadership through their operational model where “*digital leadership is not concentrated in a single function or role. Instead, it is distributed across multiple levels and departments, reflecting a collaborative and embedded approach.*” This approach ensures that “*responsibility for digital development is shared across the Learning Development team, the Learning Technologies team, HR, People Services, and senior curriculum and support managers.*”

7.2.2 Strategic Integration Models

Some colleges have chosen to embed digital objectives within their core institutional strategies rather than maintaining standalone digital strategies. This approach reflects “*a recognition at the highest level that digital skills are fundamental to the college’s core mission, not a peripheral concern.*”

- **Embedded Strategic Approach:** One college demonstrates this through their decision to integrate digital objectives within main strategies and operational plans, showing “*college leadership team’s intention to make digital development a shared, cross-college responsibility.*” This move away from “*strategy overload*” ensures digital development becomes embedded rather than marginalised.

7.3 Digital Leadership at Senior Management Level

7.3.1 Executive Commitment and Vision

Senior leadership commitment to digital capabilities manifests itself through various mechanisms across the sector. Some colleges demonstrate strong executive-level engagement such as *“the executive team demonstrates strong buy-in for digital transformation, especially around the effective use of data, adoption of AI, and systems efficiency.”*

- **Visible Leadership and Advocacy:** Several colleges benefit from visible senior champions. One college highlighted its Director of Student Experience who is *“seen as a key advocate for digital development, especially in pedagogy and virtual learning”* and described as *“very passionate, very committed, and very collegiate, with a visible presence and strong engagement with the Jisc network.”*
- **Strategic Resource Allocation:** Effective senior leadership demonstrates commitment through resource allocation decisions. Examples include colleges that maintain *“dedicated teams of learning technologists, indicating a willingness from leadership to invest in practical support for staff digital development”* and demonstrate *“responsive and supportive leadership approach”* through rapid scaling of digital tool licenses in response to staff demand.
- **Future-Focused Leadership Requirements:** Some colleges are implementing more systematic approaches to digital leadership capacity. One college’s digital strategy is currently being developed to explicitly *“integrate a standardised set of digital capabilities as part of recruitment”* extending *“all the way up to board level.”* The rationale is that board members need understanding of digital capabilities to effectively *“shape and push forward as an organisation.”*

7.4 Middle Management and Operational Leadership

7.4.1 Section Heads and Department Leaders

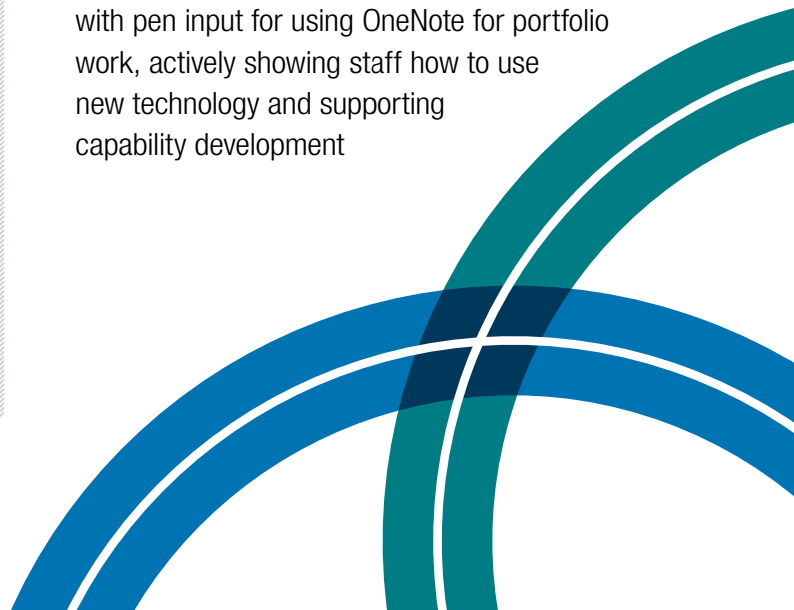
Middle management plays a crucial role in operationalising digital strategies. Across the sector, section heads and middle managers are responsible for operationalising digital objectives within their teams and are *“tasked with encouraging staff to meet minimum standards and supporting staff engagement with digital tools.”*

7.4.2 Change Agent Roles

Middle managers often function as change agents playing *“vital roles in supporting staff through major digital transitions.”* Their effectiveness is demonstrated through examples where transitions were *“perceived as much easier than expected due to managers taking the lead in that change and supporting their staff through it.”*

Specific examples of middle management digital leadership include:

- Finance managers driving adoption of new cloud-based finance systems.
- Managers facilitating college-wide transitions to a new Management Information System (MIS).
- Construction department managers being *“drivers”* behind their teams adopting devices with pen input for using OneNote for portfolio work, actively showing staff how to use new technology and supporting capability development



7.4.3 Learning and Development Teams

Learning and development teams often serve as key operational leaders in digital transformation. In one college, its Learning and Teaching Academy (LTA) acts as *“the operational driver of digital capability building, guiding both strategic direction and implementation”* providing a ‘middle layer’ perspective that bridges teaching practice, policy, and college priorities.

7.4.4 Facilitative Leadership Approach

These managers demonstrate leadership through facilitation rather than mandate: *“Rather than mandating digital development, leadership enables it by removing barriers, providing resources, and maintaining open communication lines.”* In this approach *“leadership encourages individual ownership of development, with managers adopting a coaching role in staff review conversations.”*

7.5 Effectiveness and Impact of Digital Leadership

7.5.1 Successful Outcomes

Where digital leadership is well-established, colleges report significant positive outcomes:

7.5.1.1 Engagement and Adoption

- *“Approximately 30% of individual development goals now relate to digital or data – suggesting leadership emphasis is translating into staff engagement”*
- *“Completion rates for mandatory training and system adoption have been strong, indicating that digital leadership is delivering on operational goals”*
- *“Staff report increased confidence in using digital tools, and these tools are now embedded in both teaching and CPD practice”*

7.5.1.2 Cultural Transformation

Effective digital leadership creates cultural shifts: *“Our leadership’s open and inclusive approach has helped shift staff conversations toward self-driven learning and peer collaboration”* and *“Heads of department now engage proactively in identifying learning needs and solutions, often independently of Organisational Development facilitation.”*

7.6 Identified Challenges and Limitations

7.6.1 Capacity Constraints

Despite commitment, many colleges face resource limitations: *“Despite good intentions and commitment, leadership is sometimes constrained by a lack of resources and high operational demands”* and *“Managers often struggle to balance strategic digital initiatives with day-to-day pressures on staff time.”*

7.6.2 Dependency on Key Individuals

Some successful models reveal sustainability concerns: *“The current model is highly person-dependent, and scalability may be constrained if the team is not expanded to meet growing demand or deliver on emerging priorities.”*

7.6.3 Gaps in Leadership Capacity

A few colleges openly acknowledge leadership gaps. One college noted that the absence of a Director of IT or equivalent senior-level role with responsibility for digital strategy or leadership resulted in a lack of direction for its digital development arrangements. Another states that there is *“no college-wide digital roadmap or programme for continuous improvement in staff digital capabilities.”*

7.7 Good Practice Characteristics

7.7.1 Integrated Strategic Approach

Effective digital leadership demonstrates several key characteristics:

7.7.1.1 Embedding in Core Strategy

- Integration of digital objectives within main college strategies rather than standalone digital strategies
- Alignment of digital initiatives with broader educational values and student experience priorities
- Strategic coordination across multiple development roadmaps

7.7.1.2 Multi-Level Engagement

- Active participation from senior leadership in shaping digital priorities
- Distributed responsibility across multiple departments and management levels
- Cross-functional collaboration between curriculum, IT, and professional services teams

7.7.2 Supportive Cultural Development

7.7.2.1 Facilitative Rather Than Directive

Successful digital leadership adopts supportive approaches: “*Leadership encourages capability development through example, influence, and encouragement rather than policy enforcement*” and creates environments where “*digital practice feel relevant and manageable.*”

7.7.2.2 Psychological Safety and Innovation

Effective leaders create conditions for safe experimentation: “*Leadership efforts include dismantling past blame cultures, promoting safe*

learning environments, and empowering staff to contribute solutions” ensuring that “*staff are reassured that failures in digital development will lead to reflection and improvement, not blame.*”

7.7.3 Responsive and Adaptive Leadership

7.7.3.1 Feedback-Responsive Systems

Good practice includes “*leadership decisions are often based on feedback from frontline staff*” and demonstrates “*staff report feeling ‘listened to’ when their concerns are addressed by system improvements or development support.*”

7.7.3.2 Continuous Innovation

Effective digital leadership shows “*willingness to experiment with new technologies*” and maintains “*regular review and update of digital competencies frameworks*” and remaining “*open to national strategies while maintaining local flexibility.*”

7.8 Conclusions

The evidence reveals that effective digital leadership in supporting staff digital capabilities development requires:

1. **Multi-level engagement** with active participation from senior leadership, middle management, and operational teams.
2. **Integration rather than isolation** of digital objectives within core college strategies.
3. **Facilitative rather than directive** approaches that create psychological safety and encourage innovation.
4. **Responsive and adaptive** systems that incorporate staff feedback and adjust to changing needs.
5. **Sustainable models** that do not over-rely on key individuals.

8. JISC DIGITAL ELEVATION TOOL

8.1 Introduction

The project requirements include establishing how well colleges are using the Jisc Digital Elevation Tool.

8.2 The Elevation Tool in use

Evidence from across the sector confirmed that while colleges were aware of the Elevation Tool and its importance, several had not yet fully engaged with its use due to competing priorities. However they all indicate an intention to move forward with its adoption and use, with support from Jisc.

One college reports successfully using the Jisc Elevation tool to create an action plan and add detail to its existing digital strategy. It reports that one key to success was to start small, with its initial meetings of a digital planning group restricted to 45 minutes. Ensuring that the group included a range of stakeholders, including the head of IT, learning technologies manager, and the senior manager for resourcing was also important for a successful outcome.

'In terms of an action plan, the elevation tool did the job. The tool gave detail to the strategy in a way that wasn't at all contrived, in fact, it said to people – this is a whole cross-college approach, this is not just about IT doing things for us. It educated people in a really nice way about what we needed to do to elevate.'

Other colleges report similar benefits from approaching the Elevation Tool self-assessment process with a team that had a wide representation, including senior leaders, IT staff and curriculum staff. This ensured that the approach was strategic but also granular enough to include operational considerations.

Colleges also reported that there was no one element of the Elevation Tool that was more revealing than any

other. The Tool had considerable value for colleges in establishing a benchmark against which to measure future progress. One college noted that in some aspects of the Tool it was scoring highly (e.g., Elevate level) while in others it was only at Foundation level. Answering questions across all the themes provided colleges with useful insights and areas to address. Another college reported tracking its progression from foundation stage to transform stage and using this to evaluate its digital leadership, learner experience, and staff experience.

The positive outcomes from using the Elevation Tool include identifying aspects of digital strategy that required elaboration or were not yet present. This led one college to increase its focus on data-driven decision making, while another placed greater emphasis on how digital was impacting the shape of its curriculum. One college appreciated the fact that *"the Elevation Tool provides an evidence-based, considered approach"*.

On the other hand, most colleges commented on the significantly large volume of questions in the Elevation Tool and the amount of data that it generates for an already busy group of college staff. To offset this, many made mention of the quality of support provided from Jisc Relationship Managers and the associated online meetings and webinars. One college reported that *"we have joined some of the community groups and attended several webinars, training session run by Jisc and this has proved extremely useful"*.

8.3 Conclusion

The use of the Jisc Digital Elevation Tool is a Scottish Funding Council (SFC) requirement as part of the Tertiary Quality Enhancement Framework (TQEF). Colleges already using this Tool are well supported by Jisc staff and resources to conduct their self-assessment.

9. NATIONAL SUPPORT FOR DIGITAL CAPABILITIES DEVELOPMENT

9.1 Introduction

Based on interviews with staff across Scottish colleges, there is strong consensus that a national resource and services could play a valuable role in supporting digital capabilities development across the sector. While colleges value their autonomy and recognise that local context matters, they consistently advocate for coordinated national provision that avoids duplication, provides legitimacy to local initiatives, and facilitates sector-wide collaboration and resource sharing.

9.2 College Views on National Support

9.2.1 Strong Support for Coordinated Provision

The research reveals overwhelming support for national coordination over local duplication. As one college leader noted: *“There was a feeling expressed [at a meeting of college senior leaders] that separate college digital strategies would be not a great idea, because it’s duplication and it could muddy the water.”* This sentiment reflects a mature understanding that the sector benefits from shared approaches while maintaining local flexibility.

Colleges consistently emphasise that national frameworks provide crucial legitimacy and structure to local efforts. One senior manager highlighted this value: *“National tools and frameworks lend credibility and structure to local efforts, allowing the college to say its practices are based on evidence-based, considered approaches.”* This legitimacy is particularly important when colleges need to convince staff and leadership of the value of digital initiatives.

9.2.2 Preference for Flexible, Context-Aware Approaches

While supporting national coordination, colleges are unanimous in requiring flexibility for local adaptation. The research shows that colleges want national frameworks that *“allow for local contextualisation, avoiding overly prescriptive mandates”* with *“space for colleges to tailor initiatives to suit disciplinary cultures and institutional constraints.”*

This balance between national coherence and local flexibility emerges as a critical design principle. Colleges recognise that *“colleges work differently and there’s no ‘one size fits all’ approach to a national strategy,”* yet they value the efficiency and consistency that national provision can offer.

9.3 Forms of National Support

Several themes emerged from discussions with colleges around their perception of what forms of national support would be helpful to support them, and how this support might be delivered. These themes are presented below.

9.3.1 Curated Resource Repositories and Digital Hubs

A common request was for the establishment of a comprehensive national digital resource hub providing a repository for searchable, role-specific content. Some colleges offered to make their locally-developed resources available to this resource hub. For example, a college is developing a learning needs analysis tool for data skills, covering progression from entry-level Excel to Power BI, and suggests that this could be adopted sector-wide as a standardised development pathway.

This centralised platform should offer:

- **Micro-learning resources:** Colleges consistently request *“bite-sized, role-relevant training resources”* that are *“quick, task-specific, easily searchable”* rather than lengthy, abstract courses
- **Platform-sensitive content:** Resources should allow *“filtering by platform”* to avoid confusion with irrelevant screenshots or workflows, recognising that colleges use different LMS and corporate systems
- **Role-based pathways:** Multiple colleges suggest developing *“pathways for different roles (e.g., finance, management, teaching)”* that can be shared across colleges but adapted locally
- **Curated playlists:** Several colleges specifically mention value in *“curated LinkedIn Learning playlists or recommended lists of digital resources”* structured by job role or subject area

9.3.2 Communities of Practice and Professional Networks

Colleges acknowledge the value of current networks that enable sharing of practice and opportunities to learn of new developments. This is evidenced by the recent formation of a Scottish colleges IT professionals group, demonstrating a sector appetite for broader professional communities meeting to share experiences and support individual development.

Many would welcome formalising and expanding communities of practice at national level, with particular focus on emerging technologies. The research reveals that existing formal and informal networking could be enhanced through national coordination in the following ways:

- **Existing engagement:** Colleges already participate in various communities (e.g., Jisc cybersecurity community, CDN Scottish colleges information leads group, Canvas FE User Group, SMUG)
- **Peer learning value:** Colleges emphasise that hearing from peers who faced similar challenges is *“so much more worthwhile”* and *“really valuable”*
- **Specialist communities needed:** Multiple colleges specifically request national groups for AI and data analysis, with one college noting that *“learning technologists need a national AI group”*

9.3.3 Structured Implementation Support and Consultancy

Some colleges indicate a desire for sector-aligned consultancy services to support them in their development of strategy and implementation of digital capabilities development. This was particularly noted in smaller and more rural colleges.

The suggested national support included:

- **Consultancy model:** One college requests *“access to sector-aligned consultancy support”* where smaller colleges could *“buy in expertise”* on a project basis (3-6 months) from consultants *“familiar with the FE sector”*
- **Implementation frameworks:** Beyond guidance, colleges need *“hands-on support or consultancy to help embed tools like the Jisc Discovery Tool in everyday practice”*
- **Case studies and stories:** Colleges value *“stories of how other colleges have implemented tools or processes”* including what worked, what didn't, and the impact achieved

9.3.4 Digital Capabilities Frameworks and Standards

The responses from colleges in relation to this aspect are sometimes at odds with their own practice. For example, colleges that are not making any significant use of sector-wide frameworks indicate that they would welcome the development of digital capabilities frameworks with recognition mechanisms.

Multiple colleges support establishing sector-wide standards that included:

- **Minimum standards:** Support for “*sector-wide core expectations*” or a “*minimum digital entitlement*” for staff in different roles
- **Portable credentials:** Interest in “*portable digital credentials*” or a “*digital passport*” system allowing staff to demonstrate competencies when moving between colleges
- **Modular recognition:** Staff are more likely to engage with training that is “*recognised, structured, and outcomes-based*” that would “*add up to something*”
- **Role-specific modules:** Any framework should “*break training down into modules aligned to roles*” helping staff “*track and demonstrate progress*”

9.3.5 Specialised Support for Emerging Technologies

The rapid advance of Artificial Intelligence and its use in education, along with an increased focus on data-driven decision making in colleges is highlighted by colleges. Most express a desire to have coordinated guidance and training for AI and data analytics. While most colleges are actively using Jisc resources and participating in the Jisc community of practice for cybersecurity there is a desire for further central support in this crucial area of college operations.

Colleges consistently identify these as priority areas requiring national coordination:

Artificial Intelligence:

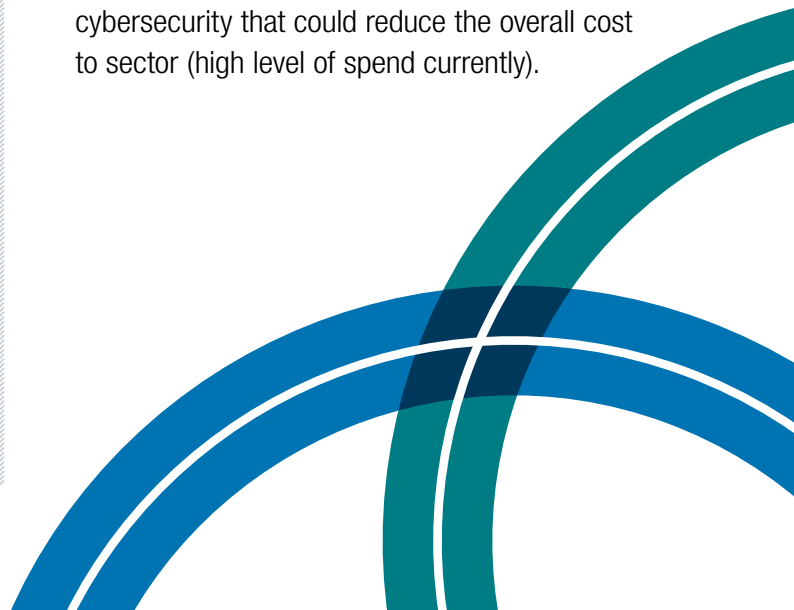
- Multiple colleges request national AI communities and frameworks (teaching staff, corporate staff)
- Need for “*common framework for AI literacy in education*”
- Demand for sample policies and ethical guidance
- Training on “*AI-powered efficiencies*” for lesson planning and feedback

Data Analytics:

- Strong interest in Power BI and data visualisation communities.
- Recognition that data analysis tools create “*much bigger community of people you can talk to*” in spite of their use of different MIS systems.
- Specific mention of data literacy as a “*sector-wide priority*”.

Cybersecurity:

- Active participation in existing Jisc cybersecurity communities.
- Need for sector-wide approaches to cybersecurity that could reduce the overall cost to sector (high level of spend currently).



9.3.6 Accessibility and Digital Inclusion Support

The legislative requirement around the accessibility of online content is also a matter in which guidance and support is sought. The desire is to have centralised accessibility guidance and digital pedagogy resources that are inclusive in their design.

The research identifies accessibility as a common challenge requiring national coordination:

- **Centralised guidance:** Demand for resources on “*producing accessible documents, using tools like Immersive Reader, and inclusive digital pedagogy*”
- **Capacity building:** Recognition that smaller colleges may lack capacity to develop comprehensive accessibility provision in-house
- **Sector-wide standards:** National resources could “*fill this gap and raise sector-wide standards*” in digital accessibility

9.4 Implementation Considerations

9.4.1 Addressing Current Barriers

The research identifies several barriers that would require careful consideration by any national provision:

- **Low engagement:** Current concern about “*low staff engagement*” and “*fear of sharing*” in existing platforms.
- **Time constraints:** “*Operational pressures*” and competing priorities limit capacity to engage with external offers.
- **Platform complexity:** Existing tools like Jisc Discovery Tool seen as “*valuable but poorly integrated and overly complex*”.

9.4.2 Success Factors

Based on college feedback, successful national provision should be:

- **Easily accessible:** Platforms must be user-friendly for all staff levels.
- **Trust-based:** Creating environments for “*reciprocal sharing*” and “*mutual support rather than competition*”.
- **Regularly updated:** Recognition of “*fast pace of software changes*” requiring current, practical content.
- **Less formal:** Value in “*less formal, peer-led exchanges*” alongside structured provision

9.5 Conclusions

Colleges acknowledge the value of the support they currently enjoy from the key sector agencies. Particular mention is made of the College Development Network’s support for networks in aspects of college digital operations, such as MIS Managers and Learning Technologists. Jisc resources are also highlighted, including the Jisc Secure Operations Centre and the Cybersecurity Community of Practice as well as the Jisc Digital Elevation Tool and its associated Community of Practice. Other aspects of national provision from sector and sector-adjacent agencies did not appear to be as well-known as they might be.

The evidence suggests that colleges would value a national resource offering colleges guidance, frameworks and standards. The form that such a resource should take is not so well expressed, with colleges noting the present sector funding challenges as a limiting factor on the scope of what might be provided.

10. KEY RECOMMENDATIONS

The evidence confirms that Scottish colleges are ready for enhanced national coordination in digital capabilities development, provided it respects college autonomy while delivering practical, accessible, and relevant support. The sector's existing collaborative culture and informal networks provide a strong foundation for these developments.

The project outputs require a plan for supporting colleges to progress the assessment and development of staff digital capabilities to meet the requirements of a digitally capable organisation. This includes the use of digital approaches to enhance teaching, learning and assessment as well as the use of digital systems and tools across all corporate and professional functions.

The evidence in the preceding sections of this report points to ways in which individual colleges might drive forward the adoption of digital approaches and tools for the benefit of students and staff through planning, leadership and the judicious application of resources. This section proposes some complementary forms of national provision that take into account both the expressed needs of staff in the sector, along with the extensive existing provision of resources and guidance from relevant agencies. As a result not all of the requested support noted in Section 10 of this report appears in the recommendations.

The mechanisms to implement these are a matter for the appropriate decision making group and key stakeholders. However, to ensure the effectiveness of these recommendations, any plan should address barriers that may hinder engagement with digital capabilities development. Resources should be designed to be highly accessible and intuitive, accommodating staff at different levels of digital proficiency. Regular updates are required to reflect evolving software features and interface changes. Furthermore, national support structures should be built on principles of trust and collaboration,

promoting co-creation and mutual learning. Emphasis should be placed on fostering informal, peer-led knowledge sharing, which complements more formal, structured support mechanisms and encourages a culture of reciprocal engagement.

Recommendation 1

Formalise and Expand National Communities of Practice and Professional Networks:

- Enhance existing formal and informal networking by fostering national-level communities.
- Prioritise specialist communities for emerging technologies, particularly Artificial Intelligence (AI) and data analysis.
- Facilitate peer learning through communities of practice
- Compile and disseminate case studies and success stories from colleges.

Recommendation 2

Establish a National Digital Resource Hub:

- Develop a centralised hub that consolidates existing resources into a single, easily accessible repository for digital learning materials relevant to college staff.
- Design the repository to be fully searchable and organised to enable staff in any role to locate and access resources most relevant to their specific needs.

- Establish digital capabilities pathways that explicitly address the unique needs and priorities of the sector (e.g., for finance, management, teaching staff) that can be shared across colleges and adapted locally.
- Curate and make available playlists of digital resources, structured by job role, subject area or software platform.
- Incorporate and share locally developed resources from colleges.
- Prioritise micro-learning resources that are bite-sized and task-specific, as these are consistently requested and proven to be effective.

Recommendation 3

Provide Targeted Support and Coordinated Guidance for Key Digital Areas:

In addition to any national communities of practice for these specialised areas, consideration should be given to providing the following:

- For Artificial Intelligence (AI): Develop a common framework for AI literacy in education, providing sample policies and ethical guidance.
- For Data Analytics: Support for data analytics and data visualisation tools (such as Power BI), and the sector-wide priority of data literacy, including ethical considerations.
- For Cybersecurity: In addition to the extensive support available from other agencies, a sector-wide approach to cybersecurity would facilitate information exchange and potentially lower costs.
- For Accessibility and Digital Inclusion: Provide centralised guidance and resources on producing accessible documents, using assistive tools,

and inclusive digital pedagogy to raise sector-wide standards and support colleges, especially smaller ones lacking in-house capacity.

Recommendation 4

Review Applicability of Digital Capabilities Frameworks

- Establish sector-wide core expectations or minimum digital entitlements for staff in different roles across colleges.
- Formulate alternative wording for existing frameworks to align them with Scottish expectations and contexts.
- Use existing frameworks to propose modular curricula that would support college staff to record and track progress in their digital competencies.

Recommendation 5

Support Digital Leadership Development

- Offer leadership development resources to help leaders effectively promote and integrate digital responsibility within their teams and organisations.
- Establish national digital leadership standards or capability frameworks that define the skills, responsibilities, and expectations for those in digital leadership roles.
- Create a dedicated peer forum for digital leaders to share experiences, exchange best practices, and collaborate on common challenges in digital leadership.

APPENDIX A: LIST OF PARTICIPATING COLLEGES

College Name	Staff Headcount (2023–24)	Interview Date(s)	Size Category
Edinburgh College	1,232	28/04/2025	Large
City of Glasgow College	1,140	02/06/2025	Large
Fife College	1,018	25/04/2025	Large
Dundee & Angus College	994	30/04/2025	Large
Glasgow Clyde College	980	22/04/2025	Large
New College Lanarkshire	850	03/06/2025	Large
North East Scotland	850	09/06/2025	Large
Ayrshire College	837	08/04/2025	Large
West College Scotland	824	22/04/2025	Large
Forth Valley College	638	25/04/2025	Intermediate
Glasgow Kelvin College	515	06/06/2025	Intermediate
Perth College UHI	492	29/05/2025	Intermediate
South Lanarkshire	360	02/07/2025	Small
Dumfries & Galloway	350	19/05/2025	Small
Inverness College UHI	348	28/04/2025	Small
Borders College	315	27/05/2025	Small
Argyll College UHI	132	16/05/2025	Small
Shetland College UHI	128	14/05/2025	Small

APPENDIX B: INTERVIEWEES, COLLEGES AND ROLES

Table showing all the individuals interviewed, their college, and their most recent known role

Name	College	Role/Title
Russell Wilson	Ayrshire College	Head of Digital Services
Carole Maudsley	Ayrshire College	Head of Learning and Skills (STEM)
Leona Johnson	Ayrshire College	Head of Student Experience
Richard Simson	Ayrshire College	Head of Business Intelligence and Digital Solutions
Joanne George	Borders College	Director of MIS & e-Learning
Conor Bradley	Borders College	IT and Digital Services
Victoria Boyd	City of Glasgow College	Head of Learning and Teaching Academy
Mandy Wallace	Dumfries & Galloway College	Head of Digital, Data and Learning Technologies
Kate Glendye	Dumfries & Galloway College	Head of Student Experience and Academic Performance
Sam Stirling	Dundee & Angus College	Digital Services Manager
Jon Buglass	Edinburgh College	Vice Principal, Innovation Planning and Performance
Sharon Burns	Fife College	Head of Digital Learning
Suzanne Galloway	Forth Valley College	Learning Teaching and Quality Manager
Joanne Roden	Glasgow Clyde College	Learning & Development Manager
John McGuigan	Glasgow Clyde College	e-Learning Lead
Andy Allan	Glasgow Kelvin College	Director of Learning Innovation and Curriculum
Ronnie Gilmour	New College Lanarkshire	Deputy Principal: Professional Services
Iain Henderson	North East Scotland College	Learning Technologies Manager
Lorna Doyle	North East Scotland College	Learning and Development Business Partner
Scott Matthew	North East Scotland College	Director of IT & Technical Services
Jill Leishman	North East Scotland College	Student Support Coordinator
David Haggath	North East Scotland College	Digital Learning Advisor
Sue Johnson	UHI Argyll	Director of HR and Organisational Development
Stewart Thom	UHI Argyll	IT Manager
Fiona McConnell	UHI Inverness	Digital Skills Training Officer
Fiona Gunn	UHI Inverness	Professional Development Manager
Jill Martin	UHI Perth	Director of Information Services & Director of ICT
Kevin Briggs	UHI Shetland	Head of Student Experience

Name	College	Role/Title
Chris Sumner	South Lanarkshire College	Head of Management Information Systems and Services
Paul Ferguson	West College Scotland	Organisational Development Manager

Name	College	Role/Title
Beth Brownlee	West Lothian College	Head of Student Experience and Improvement
Derek O'Sullivan	West Lothian College	Head of HR & People Development
Bill Dunsmuir	West Lothian College	Head of Information Systems and Digital Infrastructure

Interviewees, agencies and roles

Name	Agency	Role/Title
Lee Dunn	Scottish Digital Academy	Director
Victoria Underwood	College Development Network (CDN)	Director of Operations & Strategic Planning
Anna Ashton-Scott	The Data Lab	Head of Skills
Janice Gibson	NHS Education for Scotland (NES)	Programme Lead, Digitally Enabled Workforce
Paula Baird	NHS Education for Scotland (NES)	Associate Director for Organisation Development, Leadership and Learning
Tom Hall	Colleges Scotland	Senior Policy Officer



APPENDIX C: INTERVIEW SCHEDULE: DIGITAL CAPABILITIES IN COLLEGES

The following is intended to enable open, conversational interviews with senior managers in colleges. The aim is to understand how colleges are supporting the development of digital capabilities in both academic and professional staff.

The approach is exploratory and narrative in tone, encouraging interviewees to share stories, reflections, and experiences.

“I am interested in understanding how digital capabilities are being developed across your college – not just through policies, but in practice. I would like to hear from you what’s working well for you, what’s evolving, and lessons learned along the way.”

1. Strategy and Frameworks

- Can you describe how your college has approached the development of digital capabilities in staff?
- How are digital capabilities reflected in your overall digital strategy?
- How do they find expression in operational plans or day-to-day priorities?

2. Assessment and Review

- How do you get a sense of where your staff are in terms of their digital capabilities?
- Have you found any particular tools helpful in assessing staff digital needs?
- Can you share how they are used, and your experience of having these adopted in your review processes?

3. Training, Resources, and Support

- How do staff in different roles access training and development in digital capabilities?
- What does the landscape of support and resources look like at your college?
- Can you tell me how the college encourages or guides staff through development pathways (e.g. playlists, curated content, or other)

4. Embedding and Culture

- How do you build a culture where staff feel confident – and supported – in developing their digital skills?
- Have you seen successful strategies for reducing anxiety or building confidence among staff when it comes to digital expectations?

5. Challenges and Support Needs

- What have been some of the biggest challenges in advancing digital capabilities across your staff?
- How have you worked to overcome these – and what's on your radar for the future?
- What are the things that we could do better as a sector (together)

6. Leadership and Strategic Capacity

- How does your institution support digital capability development among its leaders and managers?
- What does effective digital leadership look like in your context – and how are you building toward that?

7. Collaboration and Sharing

- Could you tell me about any internal or external networks or communities of practice you're involved in related to digital capabilities?
- What does your college think about sharing resources – either internally between departments or more widely across the sector?

8. Closing Reflections

- Thinking about the broader national ambitions for digital capability, what would you most like to see happen next?
- Is there anything we haven't touched on that you feel is important to your college's journey in this area?

Thank you for sharing your insights and reflections.



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