

Board of Management Audit & Assurance Committee

Date of Meeting	Tuesday 29 November 2022
Paper No.	AAC2-I
Agenda Item	5.6.4
Subject of Paper	Internal Audit Report – IT/Digital Strategy
FOISA Status	Disclosable
Primary Contact	Henderson Loggie
Date of production	22 November 2022
Action	For Discussion and Decision

1. Recommendations

The Committee is asked to consider and discuss the report and the management responses to the internal audit recommendations.

2. Purpose of report

The purpose of this review is to provide management and the Audit and Assurance Committee with assurance on key controls relating to the curriculum and financial plans in place for City of Glasgow College and their alignment with the regional plan for Glasgow and the college student number targets.

3. Key Insights

This internal audit of IT/Digital Strategy provides an outline of the objectives, scope, findings and graded recommendations as appropriate, together with management responses. This constitutes an action plan for improvement.

The Report includes a number of audit findings which are assessed and graded to denote the overall level of assurance that can be taken from the Report. The gradings are defined as follows:

Good	System meets control objectives.
Satisfactory	System meets control objectives with some weaknesses present.
Requires improvement	System has weaknesses that could prevent it achieving control objectives.
Unacceptable	System cannot meet control objectives.

4. Impact and implications

Refer to internal audit report.

City of Glasgow College

IT / Digital Strategy

Internal Audit report No: 2022/10

Draft issued: 18 November 2022

Final issued: 22 November 2022



Contents

		Page
Section 1	Management Summary	
	• Overall Report Grade	1
	• Risk Assessment	1
	• Background	1
	• Scope and Objectives	2
	• Audit Approach	2
	• Summary of Main Findings	3
	• Acknowledgements	3
Section 2	Main Findings	4 - 8

Level of Assurance

In addition to the grading of individual recommendations in the action plan, audit findings are assessed and graded on an overall basis to denote the level of assurance that can be taken from the report. Risk and materiality levels are considered in the assessment and grading process as well as the general quality of the procedures in place.

Gradings are defined as follows:

Good	System meets control objectives.
Satisfactory	System meets control objectives with some weaknesses present.
Requires improvement	System has weaknesses that could prevent it achieving control objectives.
Unacceptable	System cannot meet control objectives.

Action Grades

Priority 1	Fundamental issue subjecting the organisations to material risk which requires to be addressed by management and the Audit and Assurance Committee as a matter of urgency.
Priority 2	Issue subjecting the organisations to significant risk, and which should be addressed by management as a priority.
Priority 3	Matters subjecting the organisations to minor risk or which, if addressed, will enhance efficiency and effectiveness.



Management Summary

Overall Level of Assurance

Good	System meets control objectives.
-------------	----------------------------------

Risk Assessment

This review focused on the controls in place to mitigate the following risks on the City of Glasgow College ('the College') Risk Register:

- Failure to support successful student outcomes (net risk rating: high)
- Negative impact upon College reputation (net risk rating: medium); and
- Failure to achieve improved performance (net risk rating: medium).

Background

As part of the Internal Audit programme at the College for 2021/22 we carried out a review of the College's IT / digital strategy arrangements. The Audit Needs Assessment, agreed with management and the Audit and Assurance Committee in March 2022, identified this as an area where risk can arise and where Internal Audit can assist in providing assurances to the Board of Management and the Principal that the related control environment is operating effectively, ensuring risk is maintained at an acceptable level.

Digital technology is changing the way in which we communicate, obtain services, and consume entertainment. Immersive technologies such as mixed and virtual reality are increasingly being deployed in education and training, and communication technologies means meetings can be delivered online and beyond the traditional office environment. Digital technology can transform the way organisations deliver services and operate support functions but, without strategic direction, opportunities can be missed, and staff, students, customers and other stakeholders can potentially be left behind. A focused digital strategy can assist with:

- preparing for a future where technology is connecting the physical and digital environments.
- support the creation of a digital culture that embraces digital innovation.
- enable inclusiveness through accessible digital practice.
- support more flexible and inclusive ways of working and engagement with staff and customers.
- capture and make use of data generated via digital learning environments to inform future provision.
- streamline both staff and customer administrative and business processes.



Scope, Objectives and Overall Findings

This audit reviewed the processes for the development of the IT / Digital Strategy within the College. We reviewed the adequacy and effectiveness of the governance, processes and key controls over the definition, maintenance and delivery of the IT / Digital Strategy to help the College meet its business objectives.

The table below notes each separate objective for this review and records the results:

Objective	Findings			
The objective of our audit was to ensure that:		1	2	3
		No. of Agreed Actions		
1. An application architecture is in place that ensures that the College has a suite of compatible applications that are aligned to the IT / Digital Strategy.	Good	0	0	0
2. An appropriate governance structure is in place that ensures that IT related projects, initiatives and requests are aligned to the IT / Digital Strategy.	Good	0	0	0
3. All internal and external stakeholders have been identified and provided opportunities to provide input and inform the identification of requirements of the IT / Digital Strategy.	Good	0	0	0
4. There is clear alignment of the IT / Digital Strategy objectives with the Strategic Plan and Regional Outcome Agreement objectives.	Good	0	0	0
5. There is regular reporting to stakeholders on progress with achieving the IT / Digital Strategy, including appropriate Key Performance Indicators and Key Risk Indicators in place to measure and report progress of the IT / Digital Strategy and associated risks.	Good	0	0	0
Overall Level of Assurance	Good	0	0	0
		System meets control objectives		

Audit Approach

Through discussions with the Director of IT, and review of relevant documentation, we assessed whether the IT / Digital strategic planning process and monitoring controls accord with good practice. Applicable extracts from the Control Objectives for Information and Related Technology (COBIT) framework for information technology management and governance, and guidance issued by ISACA, were used for reference.



Summary of Main Findings

Strengths

- The College Digital Strategy 2021-2030 sets out a framework for the use of digital technologies to support the College's strategic, business and learning objectives. The College's Digital Strategy 2021-2030 has been aligned with and developed to support the delivery of the Strategic Plan 2021-2030.
- We noted that a key underlying theme of the Digital Strategy relates to technology architecture, where the focus is to design, develop and maintain a technology infrastructure to support the current and future digital needs of the College.
- Despite reductions in SFC capital funding in recent year, and pressures on internal budgeting arrangements due to competing priorities and cost pressures, the College has invested significant resources to support the Digital Strategy. This spans investment in systems, applications, and digital tools, which are available to staff and students. It also includes investment in the digital infrastructure and cyber security measures which underpin these services, and the organisational structures and training delivered to staff.
- Structures have been implemented to ensure that appropriate staff groups are engaged in reviewing processes to identify opportunities to work smarter, more efficiently and more collaboratively with both internal and external stakeholders.
- Review of business cases for implementing new technology and systems includes consideration of compatibility with existing infrastructure, systems, and technology, as well as future planned projects. The project monitoring process ensures that projects remain strategically aligned and on track to deliver the intended benefits.
- The Digital Strategy was developed in consultation with both internal and external stakeholders, with the College engaging with representatives of staff and student groups. A series of internal workshops and stakeholder were delivered for staff, to promote awareness of the development of the Digital Strategy and to gather views on the challenges or barriers to improving digital capability and to identify the College's digital requirements.

Weaknesses

- No significant weaknesses were identified during our review.

Acknowledgment

We would like to take this opportunity to thank the staff at the College who helped us during our audit.



Main Findings and Action Plan

Objective 1: An application architecture is in place that ensures that the College has a suite of compatible applications that are aligned to the IT / Digital Strategy.

The College Digital Strategy 2021-2030 sets out a framework for the use of digital technologies to support the College's strategic, business and learning objectives. A set of strategic objectives and priorities are grouped under six strategic aims: active collaborative learning; access anywhere; cyber security; data driven decisions; system integration; and people centred.

Application Architecture is the process of defining the framework of an organisation's application solutions against business requirements. Application architecture comprises several distinct components including the user facing technology and how users interact with that technology, the business services incorporating workflows and system functionality, and data and how data is leveraged to improve system functionality and user experience. The IT and management teams monitor changes in the operating environment, learning and teaching delivery, and digital strategy outcomes and objectives, including:

- improving digital services: for internal teams and external stakeholders; learners; and other customers.
- improving accessibility to information and systems.
- continuing to improve the infrastructure to be able to adopt new technology and applications; and
- supporting mobile and remote working and user focused applications.

IT and digital resource decisions are then taken to ensure strategic digital objectives can be achieved.

Although not explicitly stated, we noted that a key underlying theme of the Digital Strategy relates to technology architecture, where the focus is to design, develop and maintain a technology infrastructure to support the current and future digital needs of the College. An IT Service Catalogue is in place which provides a list of technology resources and offerings available within the College. The service catalogue allows the IT team to manage and meet end-user expectations efficiently and effectively. Structures and processes are in place for identifying potential digital project opportunities and assessing the viability and strategic alignment of projects.

In line with the Digital Strategy aim of data driven decisions, the College has developed a Business Intelligence Vision which sets out how the College can use data within its existing digital systems and processes to inform strategic and operational decision making. The College has also invested in this area through the appointment of an IT Database Manager tasked with developing the College's data architecture.

Despite reductions in SFC capital funding in recent year, and pressures on internal budgeting arrangements due to competing priorities and cost pressures, the College has invested significant resources to support the Digital Strategy. This spans investment in systems, applications, and digital tools, which are available to staff and students. It also includes investment in the digital infrastructure and cyber security measures which underpin these services, and also the organisational structures and training delivered through the Organisational Development teams. An IT operational delivery plan is developed annually, which includes short to medium term actions for IT in supporting the Digital Strategy. Structures have been implemented to ensure that appropriate staff groups are engaged in reviewing processes to identify opportunities to work smarter, more efficiently and more collaboratively with both internal and external stakeholders.



Objective 2: An appropriate governance structure is in place that ensures that IT related projects, initiatives and requests are aligned to the IT / Digital Strategy.

A key principle of the Digital Strategy is to remain future focused to ensure that the College supports the digital capability of its staff and students. The internal governance for reviewing and approving IT and digital projects is as follows:

- The projects/initiatives are raised with the Digital Transformation Group seeking their approval to progress these projects/initiatives. The DTG is represented by a cross section of staff and student groups, and IT.
- If assessed as viable, proposals are referred to the Senior Management Team or Executive Leadership Team, dependent on the size of the project, along with a business case. Procedures are in place to assess project proposals to ensure that they are aligned with the Digital Strategy objectives and the wider Strategic Plan objectives; and
- Larger projects may also be referred to the Board or sub-committees to consider any wider interdependencies, opportunities and risks and consider how the proposed project/initiative will impact other areas of the College.

All business cases are subject to proportionate levels of scrutiny and approval outlined above. The business case must clearly identify how the project aligns with the organisation's strategic objectives and describe the intended benefits and strategic outcomes. Review of business cases for implementing new technology and systems also includes consideration of compatibility with existing infrastructure, systems and technology, as well as future planned projects. The project monitoring process, undertaken by the IT team, the DTG and implementing department and management teams, ensures that projects remain strategically aligned and on track to deliver the intended benefits.



Objective 3: All internal and external stakeholders have been identified and provided opportunities to provide input and inform the identification of requirements of the IT / Digital Strategy.

To be effective, endorsement must emanate from the senior leadership of the organisation, and the messaging requires to be aligned with the organisation's overall strategic vision and values. The digital strategy should demonstrate how digital practice will support and enhance existing practices and the delivery of strategic objectives.

The Digital Strategy was developed in consultation with both internal and external stakeholders, with the College engaging with representatives of staff and student groups. A series of internal workshops and stakeholder were delivered for staff, to promote awareness of the development of the Digital Strategy and to gather views on the challenges or barriers to improving digital capability and to identify the College's digital requirements. The College maintains engagement with staff teams who are focused on identifying opportunities for developing digital solutions to improve existing processes. The Digital Transformation Group (DTG) comprises staff and student representatives and provides a mechanism for both groups to continually provide input into the achievement of the Digital Strategy outcomes.

The outcomes of this research have been reflected in the strategic principles and themes identified in the Digital Strategy, including enabling and supporting digital capability and improving the College's digital interfaces with its staff, students and other stakeholders.



Objective 4: There is clear alignment of the IT / Digital Strategy objectives with the Strategic Plan and Regional Outcome Agreement objectives.

When developing a Digital Strategy, management should consider the current business environment and business processes, as well as the organisation's overarching strategy and future objectives. Consideration should also be given to external factors which impact on the environment in which the organisation operates. COBIT5 recommends that ICT strategic plans are aligned with the organisation's strategic objectives. The ICT strategic objectives, and the associated accountabilities, should be clearly communicated to ensure that they are understood by all, with the ICT strategic options identified in the Strategy integrated within departmental plans.

The College's Digital Strategy 2021-2030 has been aligned with and developed to support the delivery of the Strategic Plan 2021-2030. The Digital Strategy contains six strategic aims which are aligned with the four strategic themes and eight strategic priorities contained in the Strategic Plan, with the digital strategy an enabling other key supporting strategy covering Student Academic Experience, People and Culture, Corporate Development and Sustainability.

We noted that a key aim of the Digital Strategy is to ensure that digital projects and other developments are aligned with organisational objectives and operational need. We noted from review of minutes and that an effective governance structure has been established, which is recognised as a key principle of any digital strategy, to ensure that all activities associated with the digital strategy are aligned with overall organisational objectives. We noted that the strategic aims of the Digital Strategy are also aligned to the Scottish Government's Digital Strategy for Scotland, Our Digital Ambition for Scotland's Colleges, produced in partnership by the Scottish Funding Council, College Development Network (CDN), Colleges Scotland and Jisc.

From our review we can confirm that the internal governance for digital related (and other) projects/initiatives and requests is adequate and enables these projects/initiatives to be appropriately aligned with the Digital Strategy. All projects/initiatives must be approved by the Digital Transformation Group (DTG), the Senior Management Team (SMT) and Executive Leadership Team (ELT). Higher value and key projects are also subject to Board appraisal and approval. These mechanisms ensure that stakeholders can highlight any potential issues or conflicts with the Digital Strategy at an early stage. This helps to ensure that all projects/initiatives are aligned with the Digital Strategy, where necessary.

From our review of the Digital Strategy, the Strategic Plan, and the supporting strategies, we confirmed that there are clear linkages between each of these strategies. The Digital Strategy takes cognisance of the Strategic Plan, with the Strategic Plan also identifying the Digital Strategy as a strategic priority in achieving in the strategic outcomes.



Objective 5: There is regular reporting to stakeholders on progress with achieving the IT / Digital Strategy, including appropriate Key Performance Indicators and Key Risk Indicators in place to measure and report progress of the IT / Digital Strategy and associated risks.

It is important that the progress of implementing a digital strategy is monitored appropriately at the different levels of the implementation structure. Through discussion with the Director of IT, and review of Digital Transformation Group (DTG), Finance & Physical Resources Committee (FPRC), and Board papers, we identified that monitoring of the College digital strategy occurs on several levels, including:

- The Board, the FPRC and management groups review longer-term achievement of the strategic objectives.
- Management, project sponsors and the IT team review key outcomes for projects linked with the digital strategy and their objective(s).
- The IT and project groups review shorter-term completion of project outputs that are essential to achieving key milestones of each strategic objective; and
- The DTG monitor projects throughout the project lifecycle.

Board and sub-committee

The Board, FPRC and management meetings ensure that agenda items (and terms of reference of meetings) relate to the organisation's strategic objectives. We noted that decisions taken at Board and FPRC meetings support management and enable them to integrate and coordinate the digital objectives into operational plans and other organisational activities. Although the digital strategy covers the 10-year period 2021-2030, the strategy identifies outcomes for success in years one to three, and these are critically assessed annually. The digital strategy is subject to a rolling annual review.

Management and strategy owners

Management teams ensure expectations regarding digital strategy deliverables and outcomes progress are agreed with the Director of IT and objective departmental / project team members responsible for implementation of elements of the digital strategy. Strategy achievement is monitored against those expectations at departmental level and reported to management teams.

Departmental teams and project groups

Operational plans are developed annually with actions linked to the strategic aims and objectives of the Strategic Plan as well as projects linked to the key aims of the Digital Strategy, and other supporting strategies. Delivery of operational plans is monitored by heads of department and management throughout the year.

Stakeholders

Although not available at the time of our audit fieldwork, we noted future staff and student surveys will be utilised to gather stakeholder views on the progress made in implementing and improving the College's digital structures. Progress updates on digital projects are reported to staff through several channels, including all staff events, team meetings, staff newsletters and intranet posts. We noted during our review that the College recognised that there were gaps in reporting relevant updates to students, however communications strategies were being reviewed to consider how this could be addressed. However, from a review of projects undertaken by the College we accept that the progress and benefits of digital projects may be recognisable to students through improved learning and technology platforms in use.



Aberdeen 45 Queen's Road AB15 4ZN

Dundee The Vision Building, 20 Greenmarket DD1 4QB

Edinburgh Ground Floor, 11-15 Thistle Street EH2 1DF

Glasgow 100 West George Street, G2 1PP

T: 01224 322 100

T: 01382 200 055

T: 0131 226 0200

T: 0141 471 9870

F: 01224 327 911

F: 01382 221 240

F: 0131 220 3269

Henderson Loggie LLP is a limited liability partnership registered in Scotland with registered number SO301630 and is a member of PrimeGlobal, a global association of independent accounting firms, the members of which are separate and independent legal entities. Registered office is: The Vision Building, 20 Greenmarket, Dundee, DD1 4QB. All correspondence signed by an individual is signed for and on behalf of Henderson Loggie LLP. Reference to a 'partner' is to a member of Henderson Loggie LLP. A list of members' names is available for inspection at each of these addresses.

