Shaping the Digital Future

Carleton University's Digital Strategy & Roadmap

Carleton University

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Introduction

In an increasingly connected world, Carleton University has an opportunity to enhance our digital practices. Our inaugural Digital Strategy is a roadmap for this evolution—one guided by intention, responsibility, and innovation.

We live in an age of easy access to information, on-demand and personalized service, and instantaneous global communication. All sectors—including higher education—have had to adapt to these expectations. Today's students ask for a digital environment that is cutting-edge and flexible, and they expect equitable, inclusive, and secure access to education. At the same time, the workplace is changing. Technology is transforming collaboration, communication, and service delivery on campus and within the community. While the COVID-19 pandemic rapidly accelerated these changes—Carleton, like all other institutions, pivoted to online delivery and working from home almost overnight—the digital evolution was already underway.

These are external pressures, imposed by changes in the world around us. But Carleton also has an impressive record of innovation, whether through the discoveries and solutions of researchers, or the unique ideas of staff and students. In research, student experience, teaching and learning, and organizational excellence, the Carleton community can develop, adopt and lead meaningful technological change.

While these changes are exciting and dynamic in nature, we must proceed with care. In the **Strategic Integrated Plan (SIP)**, we are reminded of the role of technology in our past and our future; our western edge, the Rideau Canal is an engineering marvel and an ever-present example of ingenuity and perseverance. But its complex history and symbolism is a reminder that the cost of

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progress is not borne equally by all people. As we embark upon a new digital path, we must bear in mind the varying impact of technology, the need to act with ethics and compassion, and the extraordinary social responsibility we bear.

It is with this spirit—of being active, intentional and responsible drivers of change—that we must set a course for the

digital future. It is a path laid out in the SIP, and one that will be accelerated by the Digital Strategy.

Over the past year, we embarked on a series of consultations with the Carleton community. We gathered a diverse range of perspectives inclusive of faculty, staff, and students, as well as the Senate, IT governance committees and senior leadership. In total, we engaged with more than 1,000 members of the Carleton community about how to use digital technology to build on the footprint of the SIP. We also tapped into our in-house expertise by striking a cross-institutional **Advisory Committee** to provide guidance and input into the interpretation of the consultation feedback and complement it with more specialized areas of knowledge.

Throughout the consultation process, we learned that our capacity for a digital evolution relies on a culture that can adapt to change, while grounding ourselves in people-focused principles. This was consistent with our research, which emphasized the critical role of culture in facilitating a digital evolution. As a recognized leader in organizational excellence, Carleton is poised for a step change that challenges us to embrace digital technology. We must all be part of creating the conditions that will allow this ethos to flourish, including a dedicated focus on process improvement and people-centred leadership of change.

We have created a framework comprised of five guiding principles and associated objectives that is intended to support the

growth of a digital culture. Based on this framework, a cross-cutting Digital Roadmap has been developed that will support and accelerate the three directions of the SIP.

Setting the tone for the Digital Strategy and Digital Roadmap, the Aspiration Statement encapsulates the vision; one that reflects a focus on people, while harnessing the power of digital technology. Together, our inaugural Digital Strategy, Digital Roadmap, and Aspiration Statement lay the foundation for a thriving digital culture that will enable a digital evolution.

Aspiration Statement

Carleton University will leverage digital technology to empower our collective capabilities to be a force for good in our communities.

In this strategy, we see technology as an enabler—a mechanism to enhance the ingenuity and potential of our students, staff, researchers, instructors, and community partners. It helps each of us in our daily lives and work: whether in pursuit of our core mission (research, student experience, teaching and learning, and organizational excellence) or in alignment with Carleton's original sense of purpose and founding story—to create, apply, mobilize, and share knowledge that serves our community and the world.

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Carleton has invested in extended reality (XR) for experiential learning and research. Pictured: Anthony Scavarelli, a doctoral student who used virtual reality—one of the technologies under the XR umbrella—to tell the story of Viola Desmond.

Guiding Principles and Objectives

The principles and related objectives are the building blocks of our digital culture. By internalizing the Digital Strategy principles and objectives as an institution, we will deepen our alignment to the directions of the SIP and bolster our capacity for change.

While the principles and objectives can be implemented in a variety of ways by faculties, divisions, departments, and individuals, they will also drive large-scale initiatives within and across the mission pillars of Research, Student Experience, Teaching and Learning, and Organizational Excellence.

User-Focused

We will translate our people-focus to the digital-user experience. We will provide personalized, intuitive digital-user experiences that strengthen and complement our core services, and ensure our community has the support it needs to embrace these digital experiences.

User-Focused Objectives
- Implement interoperable platforms that provide cohesive end-to-end user experiences.
- Streamline operations by reducing duplicated functionality, automating the transactional and realizing process efficiencies.
- Offer the training, resources, and support that meets our community needs.

Inclusive

The voices of our communities are our most important asset. We will seek out diverse perspectives and make choices concerning digital technology with stakeholders that create inclusive and equitable physical and virtual spaces, allowing access for all.

Inclusive Objectives
- Adopt strategies for mitigating barriers to access.
- Develop a university-wide approach to digital accessibility.
- Establish an ongoing systems review process to collect feedback on system use.

Digital technology has empowered collaborative learning, community engagement and knowledge mobilization so that we can continuously improve and innovate.

Collaborative

We value constructive relationships and understand that collaboration drives our successes. We will expand our boundaries by utilizing digital technology to empower community engagement and knowledge mobilization.

Collaborative Objectives

- Foster and enable meaningful collaboration through online platforms.
- Launch internal communities of practice and networks of expertise focused on inclusive technology.
- Adopt open access in policy and in practice.

Responsible

We will be a leader in security, privacy, and ethical decision-making, working together as a community to create safe and secure digital environments.

Responsible Objectives

- Implement and maintain industry standard security practices to safeguard institutional data, student data, and collaborator data that we hold in trust and work with our communities to ensure data is protected, respected and accessible.
- Consider contributions to sustainability in the selection and use of digital technology, including reducing energy usage, the need for printing, travel avoidance, and responsible evergreening and e-waste management.
- Set transparent policies and practices that allow users to make informed decisions about their data.

Agile

We will elevate our foundations, preparing ourselves for unanticipated changes, continuously improving and creating space for innovation.

Agile Objectives

- Establish strong, transparent IT governance, including data governance.
- Proactively and holistically build for the future, strategically considering technology, process, and people.
- Foster digital innovation.

The Carleton Immersive Media Studio (CIMS) is engaged in theoretical and applied multidisciplinary research concerned with the integration of new and emerging digital technologies into non- or semi-digital workflows.

Sharpening Our Focus

The guiding principles and objectives provide a framework to navigate decisions involving digital technology at Carleton. While they represent broader perspectives affecting the university as a whole, other feedback gathered from our community inspired more specific strategic priorities.

These strategic priorities buttress the mission pillars of the university (Research, Student Experience, Teaching and Learning, and Organizational Excellence), bringing alignment with the SIP, while reflecting the varied experiences that make up the Carleton community.

Progress of the Digital Strategy will be evaluated against a set of measurable outcomes, developed through the IT governance committees, and reported on at regular intervals. Anticipated measures are likely to include a combination of annual benchmarking surveys and system analytics.

Research
Strategic Priorities
- Researchers experience a seamless end-to-end process and are well supported by interoperable, integrated systems.
- Easy to use administrative systems help researchers better manage research projects.
- Research computing is accessible and secure and takes into consideration the needs of data-intensive and non-data intensive researchers.
- We have the digital environment needed to promote Carleton as a hub of research communications, including research into digital areas.
- There is a shared understanding of the resources and tools we have available.

These strategic priorities buttress the mission pillars of the university (Research, Student Experience, Teaching and Learning, and Organizational Excellence), bringing alignment with the SIP, while reflecting the varied experiences that make up the Carleton community.

The Digital Strategy will bring into sharper focus how technology will be leveraged to support and enhance the strategic priorities within Research, the Student Experience, Teaching and Learning and Organizational Excellence.

Student Experience

Strategic Priorities

- Tools are intuitive and easy to use.
- Students can participate and interact from anywhere.
- Tools facilitate consistent interactions from recruitment through graduation and beyond.
- Accessibility is embedded in all aspects of the digital student experience.
- Student feedback informs our decisions concerning digital technology.
- Our tools and structures reinforce communication and relationship-building, both virtually and in person.

Teaching and Learning

Strategic Priorities

- Educators and learners across Canada and the world can easily engage with one another.
- Digital tools support universal design for learning and accommodate diverse pedagogical needs.
- Digital tools enable teaching and learning across a range of modalities.
- Digital tools foster relationship-rich education between instructors, students, and their peers.
- Learning analytics are used ethically to enhance student success and learning.
- There is an ongoing commitment to experimenting and innovating with digital tools for teaching and learning.

Organizational Excellence

Strategic Priorities

- Organizational excellence is optimized by intuitive, easy-to-use systems.
- Systems are in alignment with processes and policies.
- Integrated systems reduce duplication and realize process efficiencies.
- We have the systems, policies, procedures and training needed to make data-informed decisions.
- Equity, diversity, inclusion and accessibility are inherent.
- Digital technology enables a productive, flexible work environment.

Carleton's newly opened Nicol Building, which houses collaboration spaces and connected classrooms, was built with digital at its core.

Follow Our Journey

We want to ensure that as progress is made on the Digital Strategy, we take the time to reflect and identify lessons learned at regular intervals throughout implementation. This is to accommodate the changing circumstances encountered in real time, despite the best-laid plans. Our strategy must be flexible and adaptable enough to adjust to the real world. Reviews by appropriate governance bodies will be conducted to provide the feedback necessary to keep our plans on track.

We are excited to embark on this journey. In order to keep the Carleton community informed, periodic updates will be shared through the Digital Strategy website.

You are invited to follow our journey at **Carleton.ca/Digitalstrategy**.

Our strategy must be flexible and adaptable enough to adjust to the real world.

Carleton's MacOdrum Library is committed to providing digital resources, offering of thousands of online journals and databases for students and researchers.

Digital Roadmap

Overview

The Digital Roadmap outlines our action plan to support the Digital Strategy and Strategic Integrated Plan (SIP) and was informed by the guiding principles, objectives and strategic priorities described in the Digital Strategy. It further describes our plan for how we will keep the Digital Roadmap current, as we must remain adaptable to changing circumstances.

We envision a digital future at Carleton University that includes:

1 A nimble Enterprise Architecture Framework that will allow us to define sustainable high-level architectural standards to enable optimized, business-aligned technology processes.

2 A robust IT Governance and Policy Framework which prioritizes initiatives that support and align with our Digital Strategy and Strategic Integrated Plan.

3 A revitalized Enterprise Resource Planning environment that is representative of, and responsive to, the diverse needs of our community.

By creating this shared vision for what the future of digital technology will look like at Carleton University, the Digital Strategy and Roadmap will inform and guide divisional and unit-level plans across the university.

Digital Roadmap Planning Process

We will institute an annual fall digital planning and alignment session with the Information Systems Steering Committee (ISSC). This session will dovetail the portfolio of digital initiatives selected for the coming fiscal year with the university's

existing budget and resourcing cycle, institutionalizing predictable, annual 12-18 month planning horizons for the Digital Roadmap. Though budgets and resources have already been committed for the current fiscal year with respect to digital initiatives and projects, fall 2022 is the first opportunity for our IT governance, the ISSC and supporting committees, to apply our Digital Strategy's principles and priorities to the selection of initiatives and projects for the university's upcoming planning and budgeting cycle for 2023-2024.

Through a systematic and strategic review process, the ISSC will strive for a balanced portfolio that aligns with the principles and priorities identified in the Digital Strategy, while ensuring that we are always pursuing a blend of strategic, enterprise, and organizational initiatives.

Figure 1: Strategic Initiatives Planning Lifecycle

Digital Roadmap

Projects and initiatives at Carleton vary greatly in focus and scope. To achieve a balanced portfolio of digital initiatives that align with the Digital Strategy's principles and priorities, while supporting the direction of the SIP, the Digital Roadmap provides three focus areas:

1 Strategic Initiatives
These initiatives take a long-term view of digital investments, have the potential to impact and influence all mission pillars of the university, and represent all of the Digital Strategy guiding principles. They are digital enablers, laying the groundwork that will make all other projects and initiatives possible, fostering systems thinking, integration, and architectural standards, and typically have no defined end-date.

2 Enterprise Initiatives
These are projects that address strategic priorities, involve cross-functional collaboration (including the Information Technology Services department), and have a defined end-date. They are aligned with some of the mission pillars and guiding principles and are broader in scope than the Organizational Initiatives due to their cross-functional nature.

3 Organizational Initiatives
These are divisional or departmental projects funded and resourced internally and thus do not necessarily require funding decisions, but which the university would benefit from having visibility at the ISSC. The reasons will vary but the underlying strategy and intent is to improve the level of transparency and collaboration within the university.

The Digital Roadmap presents planned initiatives within their respective category, as well as noting their alignment with the Digital Strategy's principles and mission pillars. Going forward, it will be the role of IT governance to determine what is the optimal balance between Strategic, Enterprise, and Organizational, as well as alignment with the Digital Strategy and SIP.

Through Carleton's annual planning and budget cycle, many of the Digital Roadmap initiatives for fiscal year 2022-2023 have already been budgeted with resources committed by the various units, departments, and faculties. But work on the Digital Roadmap will continue beyond this time period. For the purposes of the Digital Strategy, 2022-2023 is Year Zero of the Digital Roadmap. Subsequent fiscal year initiatives will be submitted and prioritized at the annual ISSC fall planning session.

View the Digital Roadmap.

Appendix A – Contributors

The creation of the Digital Strategy and Roadmap was a collaborative effort involving many individuals whose dedication and commitment were critical to this endeavour.

Project Sponsorship
Information Systems Executive Committee (ISEC)

- Lorraine Dyke, VP (Finance and Administration)
- Suzanne Blanchard, VP (Students and Enrolment)
- Jerry Tomberlin, Provost and VP (Academic)
- Rafik Goubran, VP (Research and International)
- Marc Dabros, Associate VP (Information Technology Services) and CIO

Project Oversight
Information Systems Steering Committee (ISSC)

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- Dwight Deugo, Vice-Provost and Associate VP (Academic)
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Advisory Committee

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- Kasia Muldner, Associate Professor, Institute of Cognitive Science, Faculty of Arts and Social Sciences
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Appendix B - Sources Consulted

A wide range of sources were reviewed during an initial research phase prior to the development of the Digital Strategy and Roadmap.

View the full details of this research in our **Sources Consulted document**.

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