FACULTY OF MEDICINE:
PLAN FOR TECHNOLOGY-ENABLED LEARNING

UNIVERSITY OF BRITISH COLUMBIA

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EXECUTIVE SUMMARY

The Plan for Technology Enabled Learning was created to provide insight as to how technology will be used to support teaching and learning in an equitable and planful way across the Faculty of Medicine.

- The plan reflects the needs of a broader representation of the Faculty than in the past. It looks to identify common themes across a larger number of programs where maximum value could be derived for the majority, rather than focus solely on program specific needs.

- The new goals are strategic in nature, meant to inform specific initiatives and plans that will filter out from the planning exercise, with the hope the new technology enable learning plan will provide value and direction for the duration of its lifespan, and allow for flexibility as needs continue to evolve, focusing on and measuring major outcomes.

The development of this plan was led by a core group of Information Technology leaders, with leadership representation from each of the key education programs within the Faculty of Medicine (FoM): Undergraduate MD, Postgraduate MD, Health Professions, Graduate and Postdoctoral studies, and Continuing Professional Development. Through this structure, input and guidance was sought from the Faculty's executive leaders, and from representative learners from the various educational programs.

The plan contains two goals:

1. *Utilize a learner-centred approach to guide planning and use of technology in support of high quality and engaging teaching and learning experiences.*
2. *Enable faculty and learners to access the resources, tools and activities necessary to support teaching and learning regardless of their location.*

Sustainment of the plan will reflect the approach that has been taken throughout the development process. A "living document" approach will be followed, with ongoing annual updates and reviews by stakeholders. These check-points will include opportunities to demonstrate evidence of activities leading to achievement of the plan's goals and opportunities to revise and update the plan to reflect any changes in the environment or goals of the FoM.

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1. INTRODUCTION

The Plan for Technology-Enabled Learning was created to provide insight as to how technology will be used to support teaching and learning in an equitable and planful way across the Faculty of Medicine. It acts as the next iteration of the planning process that was initiated as part of the Educational Technology Strategic Plan (2010-2013).

From a Faculty of Medicine perspective, the plan reflects the input and guidance from executive leaders and from representative learners from various educational programs.

It was also important to gather input from external sources that provide leadership in the use of educational technology in higher education. Resources from the New Media Consortium, Educause and a leading technology research firm, Gartner were used to inform both the approach taken to develop this plan but to also gather input as to how other academic environments see the use of technology in the future.

2. PURPOSE

This plan has been created to:

- Ensure Faculty leadership know resources are dedicated appropriately to sustain current technologies and prepare for what is needed in the future.
- Provide a coordinated approach to the allocation of Technology-Enabled Learning resources to ensure they are used as committed and monitored as to their effectiveness.
- Educators, practitioners and learners are aware of the commitment made to support them.

The Faculty of Medicine's education programs have seen a growing trend of expansion and distribution in response to the Province's unmet need in areas outside of metro-Vancouver. The increase in learner numbers combined with the delivery of education to sites throughout the province requires tightly integrated planning with program delivery, facilities, technology and a strong partnership with provincial Health Authorities. Technology plays an increasingly important role in supporting education programs as learning begins to break outside of the confines of the academic campus at Point Grey. Learners require increasing connections to course materials, instructors and other learning resources in order to be successful.

Technology plays an increasingly important role in supporting education programs as learning begins to break outside of the confines of the academic campus at Point Grey. The increase in learner numbers combined with the delivery of education to sites throughout the province requires tightly integrated planning with program delivery, facilities, technology and a strong partnership with provincial Health Authorities.

It is important that the Plan for Technology-Enabled Learning be an integral part of the strategic planning fabric in the Faculty of Medicine and guided by a centralized governance structure involving all educational programming areas. It involves taking input from the learner level, and informing planning groups and committees of learner and instructor needs, and is guided then by curriculum delivery planning to keep programs aligned with the evolving needs of healthcare delivery in British Columbia.

3. METHODOLOGY

The development of this plan was led by a core group of Information Technology leaders, with leadership representation from each of the key education programs within the Faculty of Medicine (FoM): Undergraduate MD, Postgraduate MD, Health Professions, Graduate and Postdoctoral studies and Continuing Professional Development. This group sought input and guidance from the Faculty's executive leaders, and from representative learners from the various educational programs.

In order to ensure that this plan reflects the needs of the full spectrum of FoM learners, real examples or "personae" were utilized to flesh out the needs and ultimately the goals within this plan.

The personae reflected the generalizable needs of the follow groups:

1. Medical Undergraduate
2. Medical Postgraduate
3. Practising Health Professional
4. Health Professional Student
5. Graduate Studies
6. Educator

These personae reflected the access and communication challenges experienced by learners, faculty and practitioners wherever they engaged in a learning experience. Through the identification of the challenges and an understanding of the Faculty of Medicine strategic goals, a list of educational technology "needs" or requirements was developed. With the needs clearly identified and confirmed, the goals could then be formulated to address these needs.

4. GOALS, OBJECTIVES AND METRICS

A set of goals and objectives have been developed based on the needs identified through consultation with members of the university community. The needs identified in the personae were used to develop goal statements with supporting objectives that addressed the main themes. These goal statements represent the general areas within which this strategic plan means to inspire action in order to achieve our objectives.

Goal 1

Utilize a learner-centred approach to guide planning and use of technology in support of high quality and engaging teaching and learning experiences.

SUPPORTING OBJECTIVES:

a. Establish an optimal process for gathering learner input and feedback into the design and continuous improvement of educational technologies.

b. Develop a process to support the implementation of standards and best practices for high-quality and engaging educational technologies.

c. Implement a plan to create and apply high-quality and engaging educational technologies to match learner needs.

d. Evaluate how the high-quality and engaging educational technologies impact learners.

EVALUATION METRICS:

1. Measurement of the impact of high-quality and engaging educational resources on learner:
   o engagement as playing an active role in the development of resources
   o satisfaction with the functionality of the resource
   o performance from an assessment perspective
2. Measurement of faculty satisfaction with the support provided when creating and implementing new approaches to learning through technology.

Goal 2:

Enable faculty and learners to access the resources, tools and activities necessary to support teaching and learning regardless of their location.

SUPPORTING OBJECTIVES:

a. Identify the different places where learning occurs and define the instructor/learner activities that are conducted in the various places for learning.

b. Determine the requirements for transforming places where learning occurs into learning environments, and identify the supporting technologies and access methods required.

c. Create and execute a plan that supports the transformation of traditional spaces into learning environments that support a variety of learning methods.

d. Maintain the current investment in existing technologies.

e. Evaluate how "learning in any location" impacts learner satisfaction and performance.

EVALUATION METRICS:

1. Measurement of the change in learners accessing resources from distributed environments.
2. Utilization of current physical and virtual spaces for educational purposes.
3. Measurement of changes in learner and faculty satisfaction with the functionality and usability of learning spaces/environments.

3.   CONSIDERATIONS FOR ACHIEVING SUCCESS

In order to achieve the goals contained in this plan separate, tactical and operational plans will be required to implement any new technology enabling solutions. The list below identifies key considerations that will be followed to ensure activities are aligned with the context and issues of the UBC FoM and assist in meeting the needs of the educational mandate:

Considerations:

- Pedagogy drives technology.
- Build on and utilize existing assets.
- Ensure educational technology investments are guided by an informed and coordinated process.

- Leverage and integrate learner input based on their identified needs.
- Base decision making on continuous monitoring and evaluation.
- Base decision making and related activities on small iterative steps to enable flexibility in reaching goals.
- As much as possible, take the long-term and faculty wide view rather than the "quick fix" approach.
- Ensure that assets and services are applicable and accessible to FoM broadly.

5. TURNING CHALLENGES INTO OPPORTUNITIES

The FoM faces a number of challenges in realizing the goals set out in this plan. The four main challenges are described next:

1. **Prioritization and planning.** Program changes, such as expansion and curriculum renewal, coupled with a complex governance process could divert focus, resources, and time from achieving the plan's stated goals. We will reinforce planning structures and engage early and often with programs and learners during the planning phases while attempting to ensure that clear educational objectives drive resource decisions.

2. **Funding and capacity.** Additional funding may not be readily available. Limiting funding would lead to a constricting of technology-enabled support services. This would trigger a process of prioritization based on program-specific funding contributions and thereby result in an inconsistent experience for learners across the FoM as a whole. We will work with faculty leadership to ensure that the application of technology has the broadest impact and highest value to learners and covers all of the prioritized program needs. We will creatively utilize available funding to meet the broad spectrum of users while meeting funding mandates.

3. **Behavioural change.** Rapid technology changes influence expectations and behaviors of learners and faculty. We will ensure that appropriate communication and change management methodologies are employed to engage learners and faculty and clarify expectations.

4. **Technological environment.** Delays in deploying new technologies or deploying inappropriate technologies that doesn't meet needs could cause significant disruption and frustration. We will focus on capabilities to determine which underlying technologies will yield the most value. We will create the ability to deploy technology earlier by using appropriate feedback cycles and a continuous improvement approach.

6. SUSTAINMENT PLAN

The following graphic shows an annual process of aligning evolving education program needs. Through a regular engagement process with program planning groups and input from evaluations from the previous year shaping changes, it will be assured that the plan will continue to be aligned with future initiatives and associated budgets.