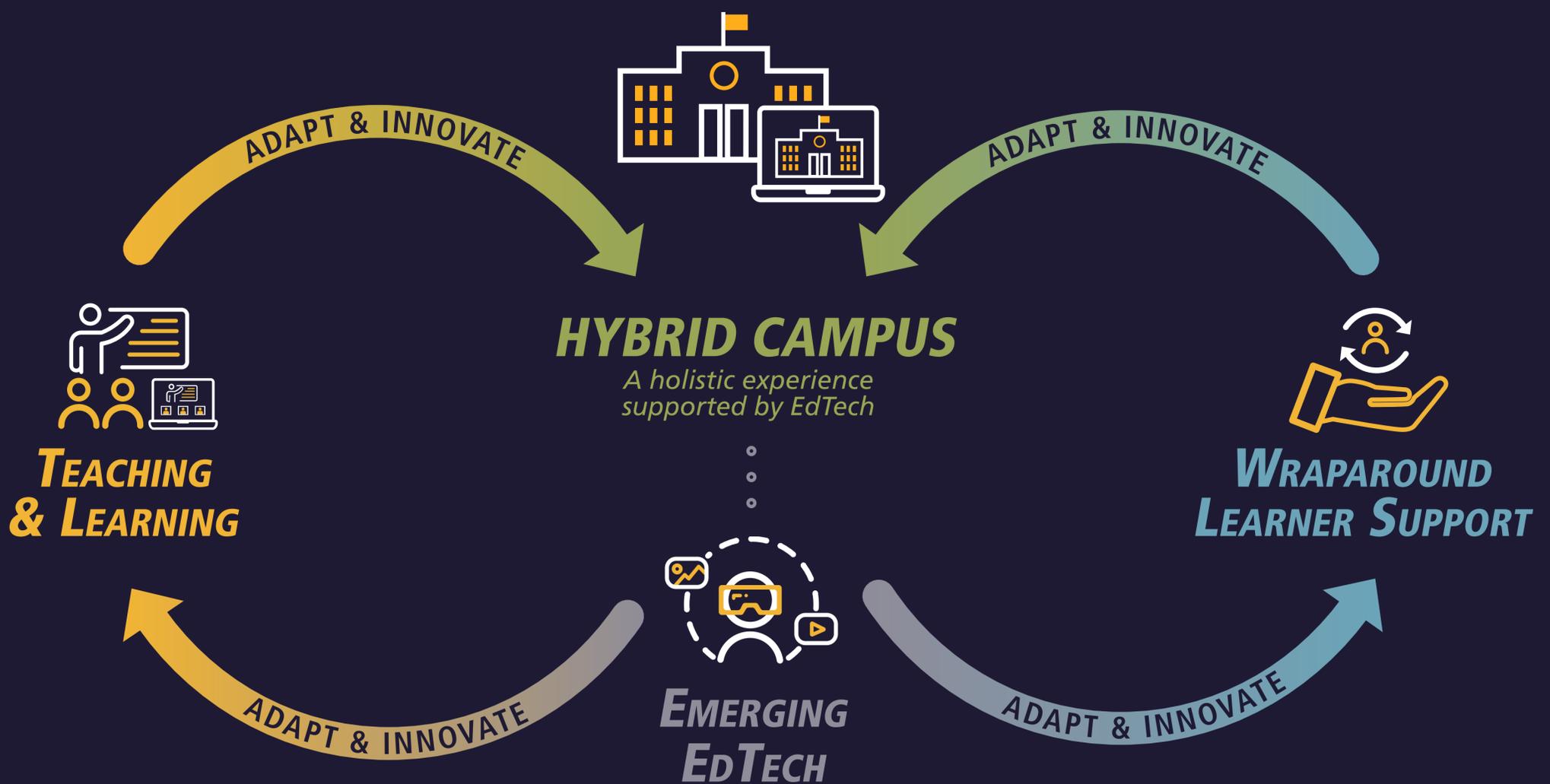


The Hybrid Futures

This report explores:

Building a Hybrid Campus

A vibrant hybrid campus uses educational technology (EdTech) to enhance teaching & learning and wraparound learner supports through iterative adaptation and innovation.



The Hybrid Futures

Why do we use futures instead of future?

In foresight practice, we refer to the future in plural.

As we cannot predict the future, there is no definite image or vision of it. Thus, the future will always be an infinite range of possible outcomes rather than a single destination.

The *Virtual Learning Strategy (VLS)* is preparing Ontario postsecondary institutions for Hybrid Futures

The VLS is supporting ongoing and future virtual learning needs at all Ontario Indigenous Institutes, colleges, and universities.

The *VLS* ([link here](#)) is built on three key pillars:



Being the Future



Being a Lifelong Learner



Being a Global Leader

By applying strategic foresight approaches, the Ontario postsecondary sector can co-create hybrid futures by monitoring maturing trends and identifying future possibilities. This work aligns with the VLS pillar of *Being the Future*.

What is a *Foresight Report*?

Foresight reports are tools to support the navigation of uncertain and complex futures. Using strategic foresight (i.e., a research-driven, systematic exploration of possible futures), Foresight Reports help inform present-day decision-making by identifying patterns of change that may have significant lasting impacts for digital-by-design futures.

How do I *use* this Foresight Report?

This foresight report is a high-level overview of maturing trends within the postsecondary education sector. We recommend readers to use this report as a map for further exploration. Readers can click on the links provided to learn more about topics of interest. At the end of this report, readers will find a conversation guide to spark futures-facing conversations and explore gradients of possibility.

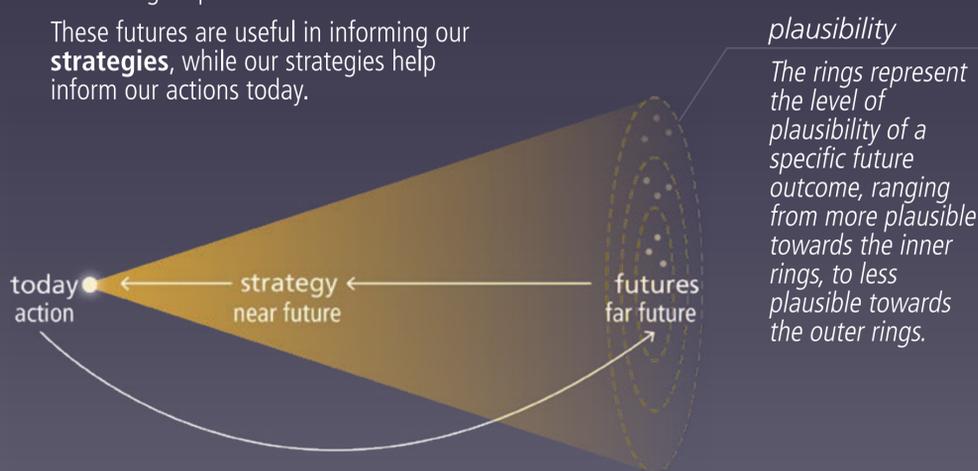
Why is Strategic Foresight *important* to Ontario postsecondary education?

The COVID-19 pandemic and the shift to emergency remote teaching amplified challenges across the Ontario postsecondary system. Strategic foresight supports institutions in navigating transformation by building awareness of some possible forces of change. Strategic foresight can help address immediate and short-term challenges, while articulating long-term visions for systems level evolution.

FUTURES INFORMING STRATEGIES OF TODAY

Emerging or maturing trends **today** allow us to imagine possible **futures**.

These futures are useful in informing our **strategies**, while our strategies help inform our actions today.



Adapted from [Joseph Voros, The Futures Cone](#)

REPORT OUTLINE

	Hybrid Campus <i>The learning delivery spectrum</i> <i>Building a hybrid campus</i>	3
	Emerging EdTech <i>Extended reality</i> <i>Artificial intelligence</i> <i>Ethics & equity considerations</i>	4
	Teaching & Learning <i>Learner-centered approaches (UDL, HyFlex)</i> <i>Hybrid teaching & learning methods</i>	5
	Wraparound Learner Support <i>Hybrid learner support services</i>	6
	Conversation Guide	6
	References	7



PLANNING FOR FALL 2021

Hybrid approaches support continuity of education amidst constant disruption to in-person teaching and learning. As of August 2021, 11% of Indigenous Institutes, 58% of colleges, and 45% of universities in Ontario had announced plans for a hybrid Fall 2021 semester. This report provides valuable insights about future opportunities and challenges to support the on-going development of an antifragile and resilient hybrid campus.

FURTHER READING

1

[What is Futures Literacy and Why Is It Important?](#)
Medium

2

[What is Foresight?](#)
Organization for Economic Co-operation & Development

Hybrid Campus

From emergency remote teaching & learning...

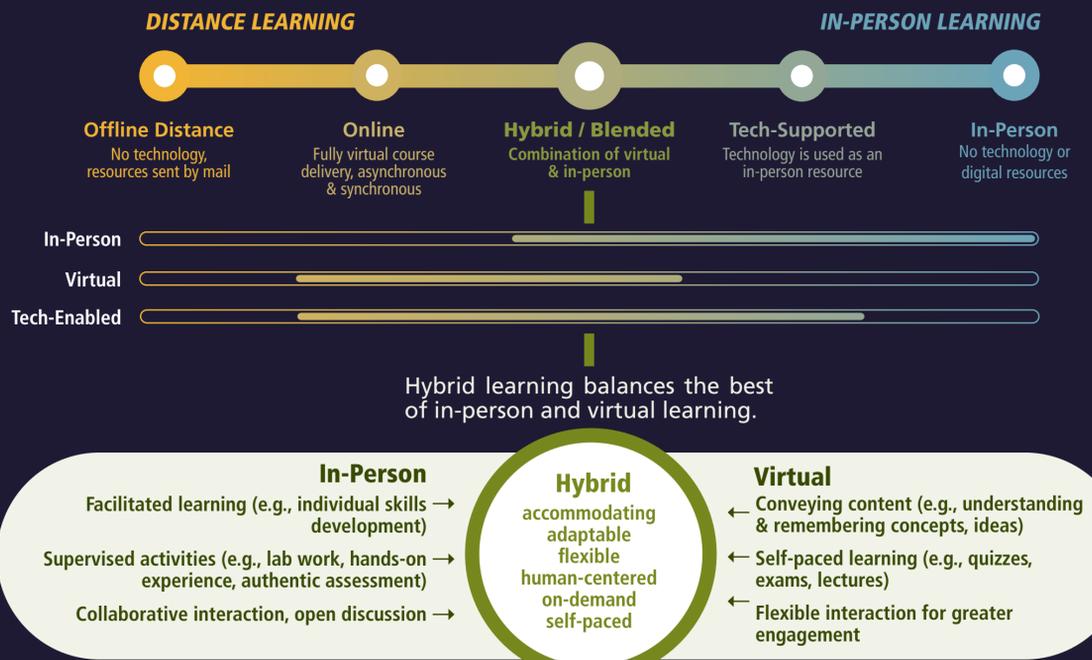
Postsecondary education experienced a significant shift as of March 2020. With the onset of the global pandemic, institutions across Ontario adapted to emergency remote teaching & learning by relying on digital technologies to bring in-person courses into a virtual space.

...to hybrid-by-design.

As we move closer to a post-pandemic future, many institutions are considering a hybrid or blended approach. This approach has the potential to harness the best of both worlds: in-person and virtual learning and supports. A hybrid campus can meet varying learner needs and backgrounds while leveraging the flexibility of EdTech.

THE LEARNING DELIVERY SPECTRUM

The Canadian Digital Learning Research Association (CDLRA) defines five modes of learning, each with various uses of digital technology. [Link here](#) for more information.



BUILDING A HYBRID CAMPUS

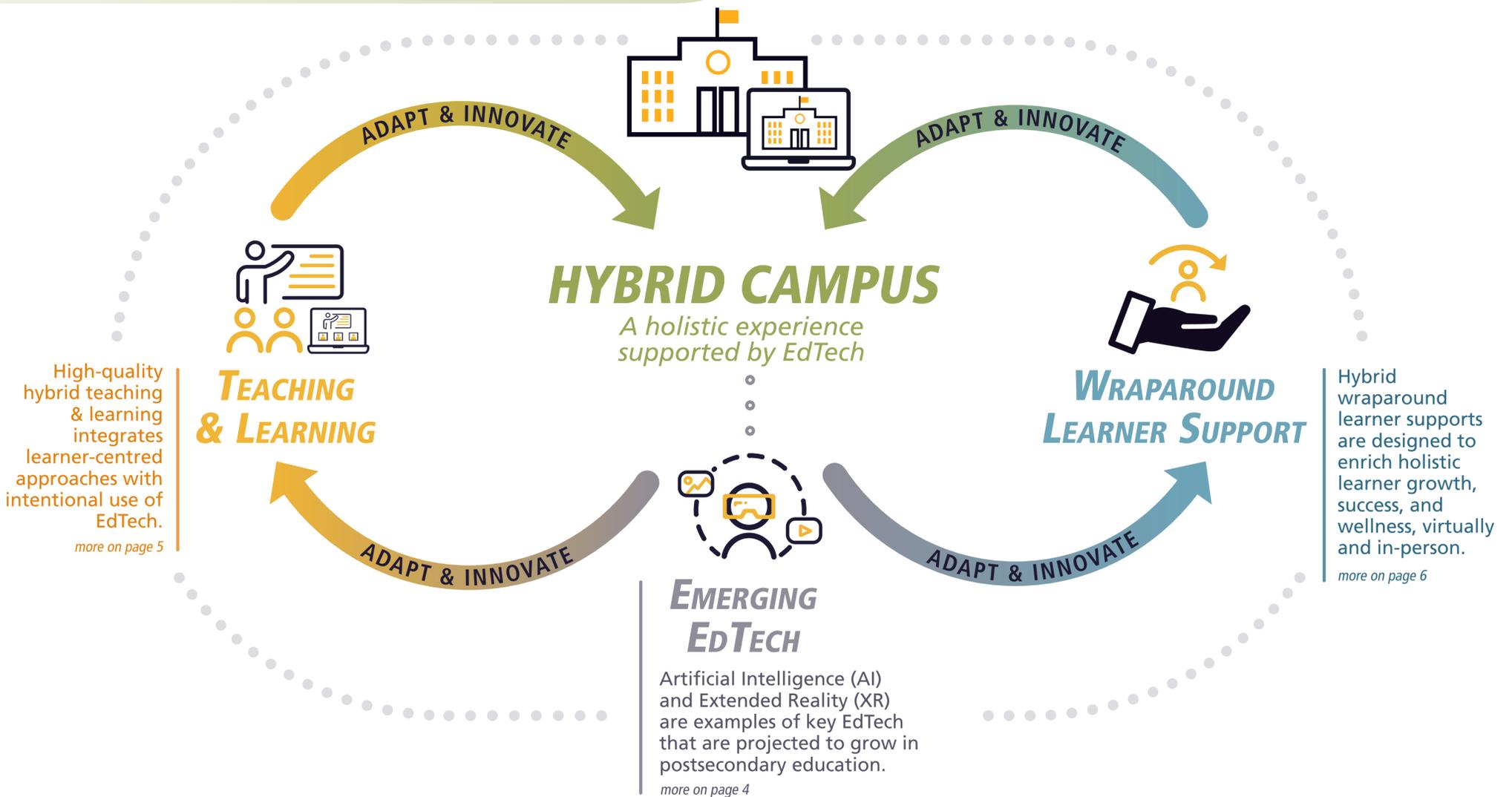
Building a hybrid campus is an iterative process of adaptation and innovation where EdTech enhances hybrid approaches to teaching & learning and wraparound learner supports (e.g., career preparation, community development, and co-curricular experiences). A vibrant hybrid campus provides holistic experiences for all learners.

The postsecondary education sector will continue to face changing learning environments, evolving learner preferences and needs, and shifting external factors, such as climate change. Hybrid campuses can build resilience in the postsecondary ecosystem by enhancing agility in constantly evolving contexts.

HyFlex (Hybrid + Flexible)

HyFlex models prioritize choice and autonomy. Learners select day-to-day how they will engage in their hybrid learning (i.e., in-person or virtual). [Link here](#) for more information.

more on page 5



FURTHER READING

1 **The Hybrid Campus**
Deloitte Insights

2 **The Acceleration of Hybrid Learning in Higher Education**
Educause Review

3 **Hybrid Learning and Ubiquitous Learning**
International Hybrid Learning Society

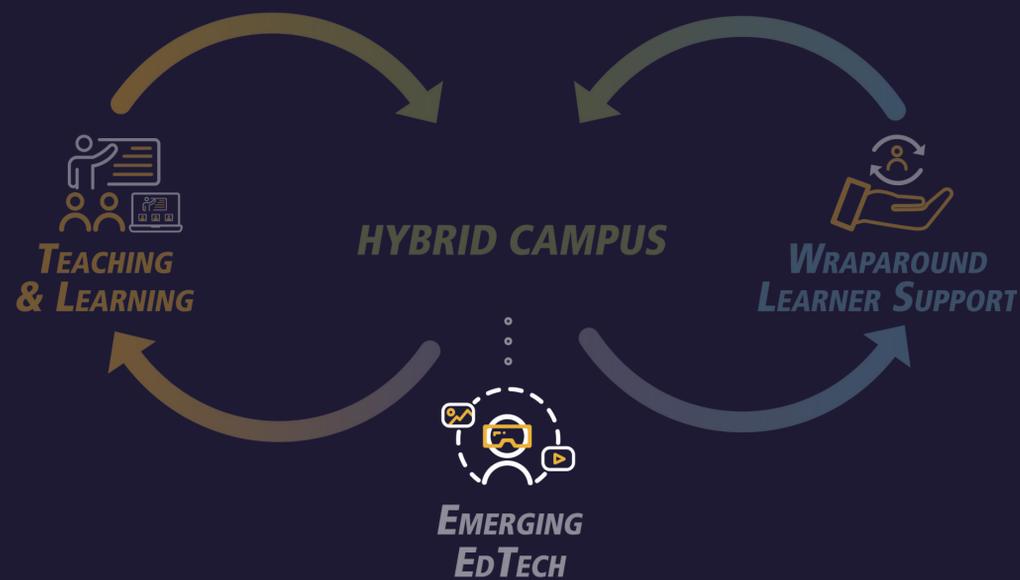
Emerging EdTech

A hybrid campus is ubiquitous, immersive...

XR allows for learning from anywhere, at any time, in simulated real-world contexts. XR is a key technological solution to providing effective hybrid experiential learning grounded in ubiquitous immersion. XR technologies can create immersive teaching & learning experiences and wraparound learner supports across a hybrid campus.

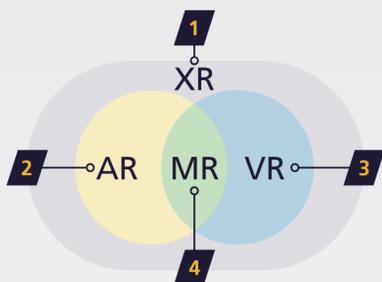
...and personalized.

Diverse learners have diverse needs. Applying AI strategically throughout a hybrid campus facilitates personalization to ensure learning experiences that resonate with learners' needs. AI can provide tailored support and guidance to learners throughout their hybrid journeys.



TECH-TERMINOLOGY REVIEW

As technology continues to push the boundaries of reality and the digital world, definitions are emerging and evolving. Please refer to the diagram and definitions below to learn more about some key immersive technologies and their relationship to postsecondary education.



1 Extended Reality (XR)

An emerging umbrella term for all the immersive technologies, such as AR, VR, and MR.

2 Augmented Reality (AR)

An enhanced version of physical reality with overlaid digital information through a digital device (such as a smartphone camera).

3 Virtual Reality (VR)

An experience taking place within fully simulated and immersive environments. Applications of virtual reality can include entertainment (e.g., gaming) and educational purposes (e.g., medical or military training).

4 Mixed Reality (MR)

A blend of physical and digital worlds that includes computer videographical processing. This new reality is based on advancements in computer vision, graphical processing, display technologies, input systems, and cloud computing.

EXTENDED REALITY

Opportunities for experiential learning

XR technologies provide learners with hands-on experiential learning at a relatively low physical risk. XR can be used for apprenticeships (e.g., electrician) and preparing learners for complex, real-world situations (e.g., health care).

Benefits of XR

- Increase engagement and motivation
- Enable exploratory and contextualized learning
- Improve accessibility
- Trigger empathic response
- Maintain interactivity while being remote and flexible
- Support career readiness



The VLS is investing \$6.6 million into 60+ projects that are developing simulations, serious games, or XR experiences. These will be available for use across the Ontario postsecondary sector in 2022.

[Learn more here](#)

ARTIFICIAL INTELLIGENCE

Current uses of AI



Learning support:

Chatbots
Learning Management Systems (LMS)
Intelligent tutoring systems



Learner assessment:

Learning analytics
Plagiarism checking
e-Proctoring

Benefits of AI

- Anticipate learner needs & provide resources
- Support learners & increase engagement
- Support educators & staff in managing task load
- Assist in the development of new teaching strategies with evidence-based information

*"Technology gives learners greater ownership over **what** they learn, **how** they learn, **where** they learn, and **when** they learn." - OECD, 2021*

ETHICS & EQUITY CONSIDERATIONS

Prioritizing ethics and equity in design, decision-making, and implementation of EdTech ensures all learners and educators can thrive on a hybrid campus.

Tech Integration

Digital transformation is about talent as much as technology. It is important to continue defining AI, educator, and staff roles as tech integration increases. Professional roles will necessarily evolve with the addition of technologies. Designing intentional human-machine partnerships will be key to building a hybrid campus.

Tech Bias

Technology is designed by humans and can therefore perpetuate human biases. Applying principles of equity, diversity, decolonization, inclusion, and accessibility in the design, implementation, and use of EdTech will ensure all learners and educators are seen, safe, and affirmed across a hybrid campus.

Tech Equity

On a hybrid campus, all learners and educators need access to affordable and reliable:

- 1) hardware (e.g., computer, XR headset)
- 2) software (e.g., LMS)
- 3) high speed internet connection

Tech equity allows all educators and learners to participate and engage in teaching, learning, and wraparound supports.

FURTHER READINGS

1

[Augmented and virtual reality are helping colleges up their tech game](#)

Maclean's

2

[Exploring the Future of Extended Reality in Higher Education](#)

Educause Review

3

[Software that monitors students during tests perpetuates inequality and violates their privacy](#)

MIT Technology Review

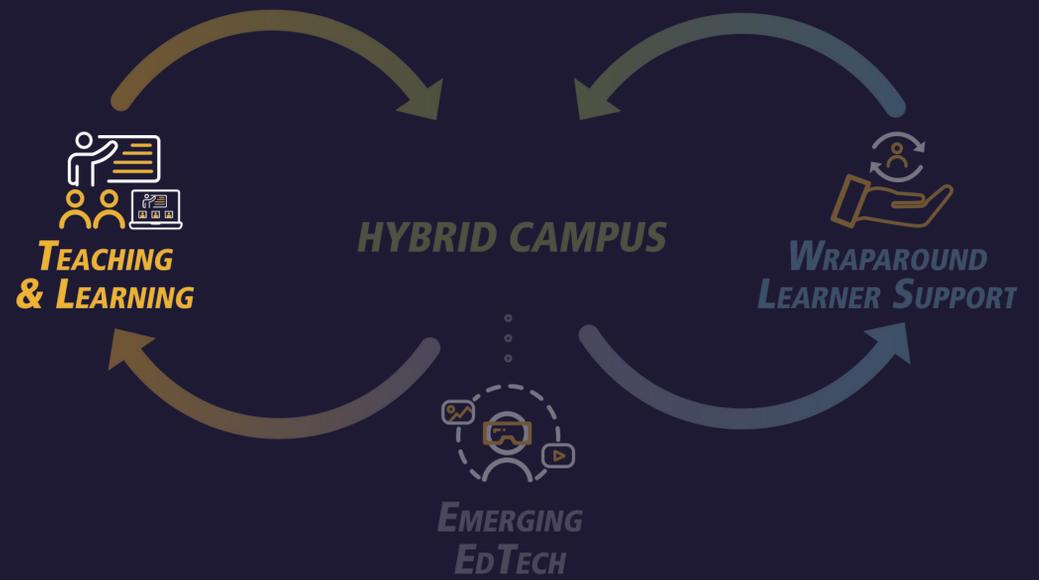
Teaching & Learning

A hybrid campus is learner-centered...

High-quality teaching & learning meets the diverse needs and experiences of each learner. Universal Design for Learning (UDL) engages learners through meaningful learning materials and activities. HyFlex models prioritize learner choice and autonomy.

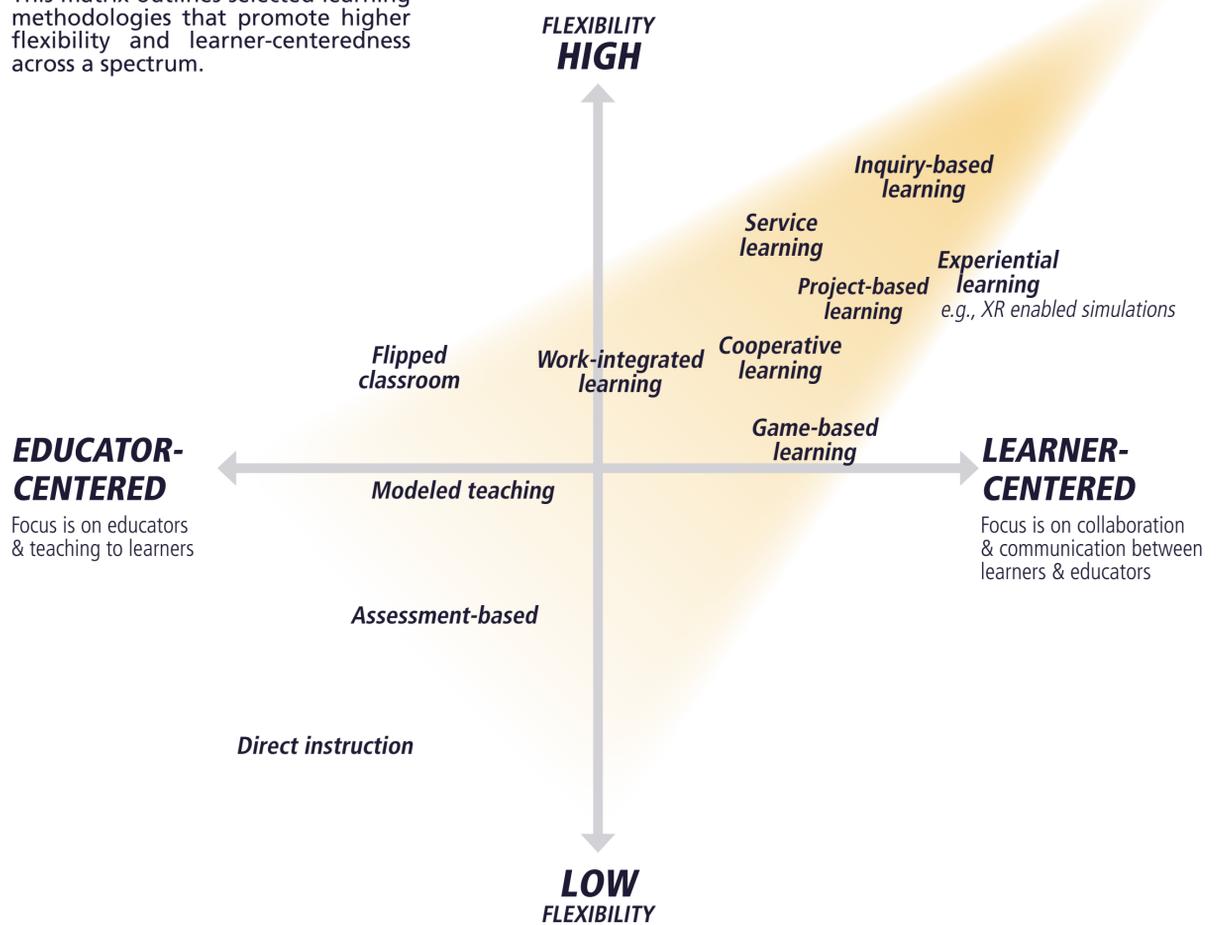
...& embraces variety.

Educators pragmatically employ a variety of teaching & learning methods to support a learner-centered education experience. For example, experiential learning facilitated by XR is a highly flexible, learner-centered hybrid method of teaching and learning.



HYBRID TEACHING & LEARNING METHODS

This matrix outlines selected learning methodologies that promote higher flexibility and learner-centeredness across a spectrum.



LEARNER-CENTERED APPROACHES

Universal Design for Learning (UDL)

UDL is a learner-centered approach which champions engaging ways of learning (e.g., visual materials, channels of communication, group work, reflections, evenly distributed course load).

UDL supports the intersectionality of learner identities in **three** ways:

- **Engage learners in a meaningful way**
Personal & goal-building
- **Represent & incorporate diverse learners**
Alternative material, transcripts for videos
- **Encourage action & expression**
Various ways to demonstrate learning & knowledge

[Learn more here](#)

HyFlex (Hybrid + Flexible)

The four core principles informing HyFlex instructional design are: learner choice, equivalence, reusability, and accessibility.
[Link to learn more.](#)

In HyFlex models, learners can choose how they want to participate in their learning on a daily basis.

- **In-person synchronous**
Attend an in-person classroom session in real time
- **Virtual synchronous**
Join a virtual class session in real time
- **Virtual asynchronous**
Participate in a virtual class on demand

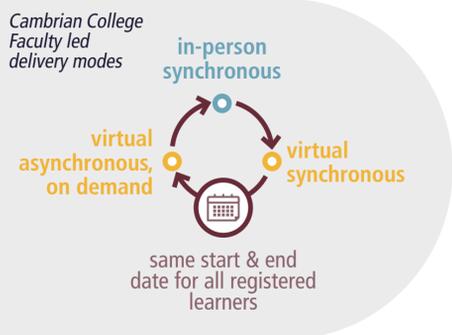
CASE STUDY: HYFLEX LEARNING AT CAMBRIAN COLLEGE

"To align with the way that students live, work, and learn today, Cambrian College is investing in the creation and delivery of HyFlex courses. The aim of this delivery mode is to offer students the maximum amount of choice possible within a formal learning program."

Design with Empathy
Consider the learners' journey for all three delivery modes.

Institutional support
Prioritize learner needs and implement necessary supports for the transition and application of HyFlex learning.

[Link here](#) for more information.



EDUCATOR & STAFF DEVELOPMENT: A KEY FACTOR

Current and near-future educators, staff, and leaders seek professional development opportunities to support evidence-informed decisions about EdTech and hybrid pedagogy. Investing in professional development is essential to building a hybrid campus and delivering high-quality and learner centered experiences.

Ontario Extend empowers educators to explore a range of emerging technologies and pedagogical practices for effective online and technology-enabled teaching & learning.
[Link here](#) for more information.

Empowered Educator

"Educators can be designers, knowledge brokers, system thinkers, talent maximizers, and bridge builders in the transformation of education." -Berry et al. 2013

FURTHER READINGS

1 [Innovative Pedagogies of the Future](#)
Frontiers in Education

2 [The UDL Guidelines](#)
CAST

3 [Reimagining higher education as a student-centered experience](#)
Microsoft

Wraparound Learner Support

Holistic hybrid supports for learners...

On a hybrid campus, wraparound learner supports complement the in person and virtual campus experience. These support all aspects of the learner experience. Research demonstrates a strong positive correlation between engagement, retention, and graduation rates.

...prioritize wellbeing.

Wraparound learner supports prioritize wellbeing and foster a healthy balance between life, work, and education using a wellness-first approach. They also strengthen communication and ensure meaningful connection with learners to identify and address specific learner needs.



The VLS is investing approximately \$1 million into 2 projects developing wraparound learner support services, with collaboration from more than 15 colleges and universities.

[Learn more here](#)



HYBRID CAMPUS



EMERGING EdTECH

HYBRID LEARNER SUPPORT SERVICES

Learner supports can include:



Virtual communities
Create academic and social spaces where learners can meet and network with other learners, educators, and staff.



Health & wellness
Enhance health and wellness by providing both in-person and virtual health (including mental health and counseling) services for learners.



Virtual orientation
Support learner transitions through hybrid social, academic, and advising events to help orient them before courses begin.



Hybrid-Career Services
Coordinate alumni and mentors to provide virtual career fairs and career advising sessions for current learners and recent graduates.



Additional services
Financial aid; bursaries; academic support & guidance; housing & food security aid



Oshki-Wenjack beading package



OSHKI-WENJACK
OSHKI-PIMACHE-O-WIN
THE WENJACK EDUCATION INSTITUTE

CASE STUDY: LEARNER SUPPORT

Oshki-Wenjack mailed out beading packages and invited learners and their families to participate in a virtual beading session with their Elder-on-Campus.

Elders Program

Giving learners and their families a comfortable place to enjoy cultural practices, such as smudging, praying, or just relaxing.

Full Spectrum Support

Provide support at all levels of learner life (e.g., academic, professional, personal), so learners feel welcomed, respected, and supported throughout their learning journey.

[Link here for more information.](#)



FACULTY OF
ENGINEERING AND
APPLIED SCIENCE



Clark Hall on QUCraft

CASE STUDY: MINECRAFT CAMPUS

"Queen's students may not be able to visit campus physically, but now, thanks to a group of engineering students, they can experience it virtually through a popular online game: Minecraft."

The goal of the project is to provide prospective students and the public with the experience of visiting the Queen's Campus using Minecraft and creating conversations through Discord, a virtual space to connect and share ideas.

Enhance the Public Experience

Creating a virtual meeting place that is open to serendipity.

Building Community

Building relationships with the public and answering questions as they are navigating the virtual campus.

[Link here for more information.](#)

CONVERSATION GUIDE



We invite you to select one or more trends from this report and use the questions provided to spark conversations across your institution.

Remember, this report is simply the beginning.

Please use the additional links and reading resources provided to help guide and support your futures-focused journey.



Reach Out to Us!

For additional guidance, questions, or to share your work, please contact research@ecampusontario.ca.

QUESTIONS TO FACILITATE FUTURES THINKING

- WHAT**

 - What new opportunities and challenges could arise from this trend?
 - What are the ethical implications of this trend?
 - What resources are needed to implement this trend (e.g., human, financial)?
- WHY**

 - Why are hybrid futures important to our community (including learners)?
 - Why is this trend important to building hybrid futures?
- WHO**

 - Who needs to be involved in shaping hybrid futures that include this trend?
 - Who will be impacted (positively and/or negatively) by this trend?
- HOW**

 - How do we enhance capacity to facilitate the implementation of this trend?
 - How does this trend impact equity, decolonization, diversity, and inclusion efforts?
 - How can we build this trend to be sustainable?
- WHERE & WHEN**

 - Where do we go from here (i.e., what are next steps)?
 - When can we take action?
 - When can explore this trend further?

CO-CREATE HYBRID FUTURES WITH eCAMPUSONTARIO

1

Ontario Extend Program

Join a micro-credentialed professional learning program to explore a range of emerging technologies and pedagogical practices for effective online and technology-enabled teaching and learning.

2

Remote Teaching & Learning Resources

Find resources, tools, and conversations to support your transition to remote teaching.

3

VLS Website

Explore how the Virtual Learning Strategy investment is contributing to hybrid futures.

4

Open Library

Access free and openly-licensed educational resources to support your hybrid teaching and learning experience.

5

VLS Community of Practice

eCampusOntario is hosting an interactive forum to connect peers across the Ontario postsecondary sector to share new ideas and learn from each other.

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The Hybrid Futures Report is the first in a series of five Foresight Reports that expand on the VLS pillar of Being the Future by exploring maturing trends in the Ontario postsecondary sector and situating the VLS in the futures of virtual learning.

Foresight Reports are accompanied by a series of five Focus Reports, that tell data-driven stories about the VLS investment.

2021-22 VLS Reports Outline

- Focus Report ● Foresight Report


Launching
the VLS


Connecting
to Create


**The Hybrid
Futures**