

## FUTURE MAKERS SESSION

June 25, 2022 • 1200 hrs

**Participants:**

Lexi MacDonald - 3rd Year Computer Science - Dalhousie  
Keigan MacDonald – 2nd Year Applied Computer Science - Dalhousie  
Alex Ivimey - 2nd Year Applied Computer Science - Dalhousie  
Daria Hughes – 4<sup>th</sup> Year Nursing Student - Dalhousie  
Makatendeka Biton – 4<sup>th</sup> Year Biology – St. Mary’s University  
Sofia So – 3<sup>rd</sup> Year Therapeutic Recreation - Dalhousie  
Julianne Bain - Child & Youth Studies – Mount Saint Vincent University  
Olivia Banks - Public Relations Student – Mount Saint Vincent University  
Paige Grabka - 3rd Year Science – Acadia  
Andrew Black - 3rd Year Business Administration - St. Mary’s University

**Facilitated by:**

Liam Hebert, Facilitator



**Present:**

Mary Lee, President & CEO  
Sharon Oulton, Recording Secretary

## 1. Welcome and Introductions

Mary Lee, President & CEO, welcomed everyone to the session. She introduced facilitator Liam Hebert, a member of the first future makers group, and asked him to come forward to speak to his background. Liam spoke to his education and employment experience and invited introductions around the table.

Ms. Lee reviewed the agenda and advised that the purpose of this session was to engage the group in discussions around using augmented reality and virtual reality to advance HANS' services.

## 2. Review Purpose of Change/Future Makers Group

M. Lee explained where the concept for a Future Makers group came from and provided an overview of its' purpose:

- first created in 2019 to help inform the Health Association Nova Scotia's (HANS) Board in its strategic directions.
- acts as a shadow board and has direct/specific input into improvements in the services that HANS offers.
- **past sessions addressed:**
  - ✓ Innovation and ways to improve services
  - ✓ Redevelopment of the building and input into design and principles
  - ✓ Group Benefits Plans – how do we enhance services and delivery
  - ✓ Dress Code and Business Setting

## 3. Overview of HANS and *igility* Services

Ms. Lee provided an overview of HANS' corporate governance model, organizational structure, history, and services. She also spoke to the various services and projects which fall under *igility*. While reviewing the corporate governance model, she added that the metaverse will provide us with the ability to offer services to organizations who are not members of HANS.

## 4. What are metaverse technologies?

Liam presented two videos:

1. [\(7\) Breaking down the metaverse - YouTube](#)
  - In the metaverse you will socialize, learn, collaborate, and play in 3D spaces that go beyond what we can imagine; and
2. [\(7\) Introducing Microsoft Mesh - YouTube](#)
  - Microsoft Mesh enables presence and shared experiences from anywhere – on any device – through mixed reality applications.

### What do we mean by Metaverse?

A collection of technologies and interfaces (AR, VR, Trad.) to enable immersive and spatial experiences in a persistent and connected environment.

Liam presented the four main pillars of the Metaverse and advised they are still in the development phase:

1. **AR and VR Interfaces** – e.g., used in the medical field to provide remote assistance to doctors performing surgery.
2. **Collaborative** – e.g., Training
3. **Connected** – e.g., physicians all interconnected
4. **Spatial** – e.g., provides a virtual space where groups of people can collaborate on projects.

## Discussion Segments:

### How can the metaverse be applied to Healthcare?

#### Potential Areas for Impact

- **Telemedicine**
  - Heavily relied on in rural communities
- **Collaboration**
  - Doctor shortage, expert collaboration, AR
- **Accessibility**
  - Mobility issues, immersive at home services
  - Mental health
- **Connected**
  - Information can be easily shared

## Discussion #1

### How can Metaverse technologies be applied in Healthcare?

*How would we implement this technology?*

*What services should we provide in the metaverse? What would this look like?*

*What are the obstacles? How would we overcome them?*

*How do we make it accessible?*

#### **Implement Metaverse Technology**

- Recruit metaverse specialists (applications/data transition/equipment set up/trainers)
- Provide accessibility/education/training for healthcare professionals and public
- Set up VR/AR technology centers for patients/healthcare professionals to use throughout the province (e.g., smaller communities/hospitals)

#### **Services in the Metaverse**

- **VR/AR Patient Assessments/Consultation** - benefits patients with mobility/disability/compromised health issues; and patients in rural areas
  - Mental Health – real time observation of symptoms - use Avatar if you are not comfortable showing yourself
  - Triage of Emergency Department patients from their homes
  - Patient consultation with all of your healthcare providers
- **Training/teaching the Health Professionals** – Simulation
  - Health care scenarios/techniques – e.g., surgery
  - Medical conferences
- **Telemedicine**
  - Efficient/effective patient interaction
  - Physical/Occupational Therapy/Rehabilitation
- **Information Hub** – Interconnected Data
  - Medical records
  - Research + plus patient involvement
  - High speed search engines for symptoms (teaching)

## **Obstacles**

- **Accessibility to the Technology**
  - aging population
  - financial barriers
    - ✓ offer special benefits/discounts/incentives
    - ✓ outsource – decrease costs
    - ✓ deep learning/AI augmented system that can improve efficiency and decrease cost in medical services
    - ✓ update the software - not necessarily the hardware
- **Education/Training – Healthcare Professionals**
  - shortage of healthcare professionals - how do you take healthcare professionals from their jobs to train them on the new technologies?
    - ✓ customize education/training specific to needs
    - ✓ professional development days for healthcare professionals
    - ✓ reallocate resources
- **Education/Training – Patients**
  - not everyone understands the technology
    - ✓ customize education/training specific to needs – e.g., seniors
    - ✓ provide support to guide people on how to use the service/technology
    - ✓ outreach programs (provision of education/training)
- **Language barriers**
  - ✓ outsource translators
- **Confidentiality/privacy issues** – cyber security
- Access to medical records – transition would be difficult
- Missed symptoms when diagnosing virtually
- Technology is slow to advance
- Transition time

## **Accessibility**

- **Provide the VR/AR technology/support/training** similar to Bell Aliant’s provision of bundled services - customize services to meet needs
- **Create metaverse “assessment centers”** throughout the province

## Discussion #2

### **What role can HANS/igility play?**

*HANS provides: Benefits; Equipment Support; and Policy Guidance*

*igility provides: Advisory and Patient Services*

*How can HANS enable and apply Metaverse technologies?*

*What are new services that could be provided?*

- HANS has authority to add to our benefits/insurance - **Provide coverage for implementation purchases/training**
- **Recruitment**
  - ✓ Educators/trainers/technicians/specialists - determine skills/roles/centers needed
- **Marketing/Advocacy role** - advocate for VR/AR in the health system/diverse populations – public middleman
- **Training** - create/provide training programs for healthcare professionals (e.g., simulation); and public

- **Address accessibility** for seniors and low income people through grants/partnerships; subsidies/benefits/costs
- **Create outreach programs** - outsource diagnostics technology
- **Use deep learning/AI system to analyze health patterns/trends** in a particular community:
  - ✓ enabling faster/more accurate diagnosis; inter-connected medical records; share information – data/education is key
- Provide medical equipment – e.g., prosthetics
- Provide virtual testing
  - ✓ Barrier - mental health – is diagnosing virtually ethical?
- Provide a shared space for access to any service - would be good for an initial assessment and triaging
- **Determine metaverse requirements** for different scenarios e.g., mental health – just meeting vs how to triage/equipment needed

### Discussion #3

<b>What does the meta-workplace look like?</b>
<p><i>Would you use the metaverse as an office space? How?</i></p> <p><i>How do we merge our physical spaces with virtual ones?</i></p> <p><i>What does collaboration look like?</i></p> <p><i>How could we engage with members over the metaverse?</i></p>
<ul style="list-style-type: none"> <li>• <b>Work from anywhere</b> – VR or AR - feel like you are out of the building/country</li> <li>• Diverse and International Recruitment – diversifies workplace/allows for different perspectives</li> <li>• Remote working – boosts morale/positive work experience/time efficient/effective</li> <li>• Promotes staff needs/comfort - will result in less sick days</li> <li>• Mental Health Pods</li> <li>• Meeting Pods</li> <li>• Costly for programs/setup/equipment</li> <li>• <b>Collaboration</b> <ul style="list-style-type: none"> <li>✓ Combination of face to face and metaverse – not removing creativity</li> <li>✓ You can read vibes in virtual settings – feels more connected</li> <li>✓ More efficient interactions/projects/people/minds</li> <li>✓ Global collaboration/engagement/problem solving/policies – can make experience fun</li> <li>✓ Recording metaverse events – meetings/projects</li> <li>✓ Promotes team building/engagement</li> <li>✓ Meet anywhere – increase participation</li> <li>✓ Productive/Efficient/Flexible</li> <li>✓ Microsoft Mesh – keeps human interaction</li> <li>✓ Simulation based training/hands on – lower costs</li> <li>✓ Choose different meeting platforms to suite various teams</li> </ul> </li> <li>• Merging spaces is dependent on the job/role</li> <li>• Different platforms/systems – pick what suits your team/workplace needs</li> <li>• Heightened member engagement through online platforms</li> </ul>