

## Transforming Healthcare Delivery through Mixed Reality

HIMSS Nursing Informatics
Community Webinar

June 21, 2022

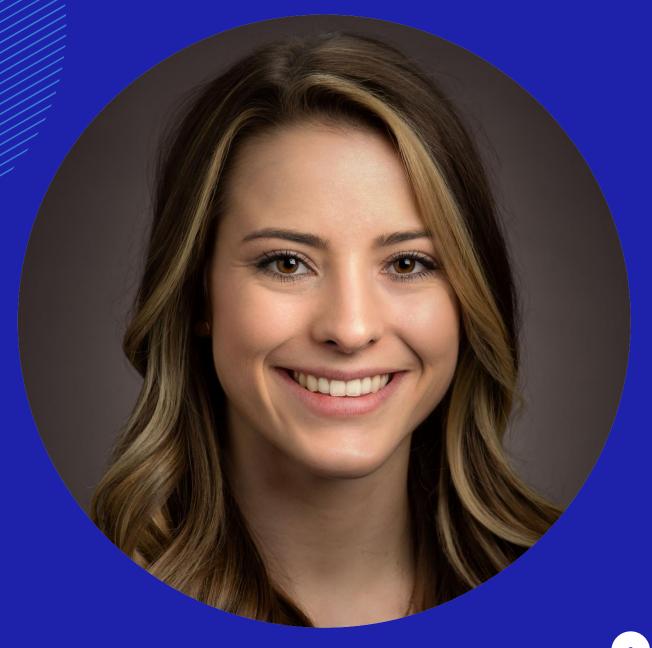




## Welcome

Cait Michicich, MBA

Program Manager, Clinical Informatics, HIMSS





## HIMSS Nursing Informatics Community

The Nursing Informatics Community's purpose is to articulate a cohesive voice for the HIMSS Nursing Informatics community and to provide domain expertise, leadership and guidance to HIMSS activities, initiatives, and collaborations with the global nursing informatics community.

- Educational webinars qualified for CA/CPHIMS on nursing informatics topics and emerging trends
- www.HIMSS.org/NI
- #Nurses4HIT



## Join us on Accelerate!

Join Accelerate today at YourAccelerate.com

Accelerate is a natural extension of HIMSS's origins and foundation as a member-driven society, and is an innovative solution aimed to support members, partners and the global health ecosystem 365 days a year.



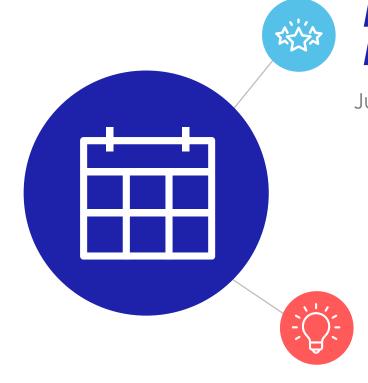
To join the HIMSS Nursing Informatics Community, register with your email, password, and personal invite code: MVPNI

To join the HIMSS Future of Nursing Community, register with your email, password, and personal invite code: HIMSSFON



### Upcoming Events

www.himss.org/events



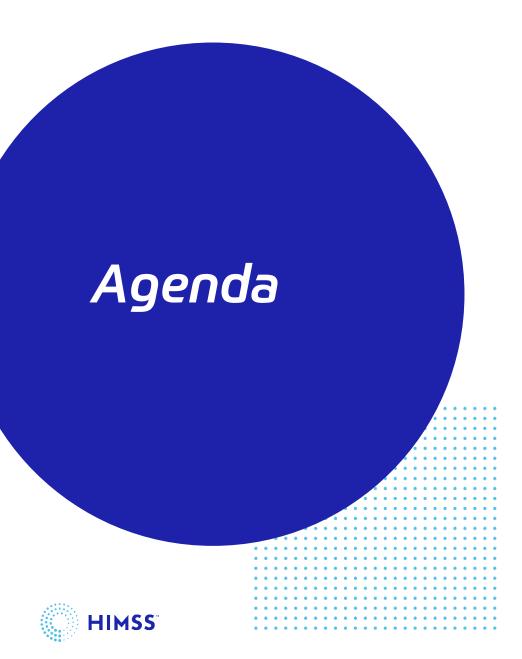
## Nurses in the Innovation Space

June 30, 2022 | Webinar

Mitigating ED
Overcrowding
Problem Using
Machine Learning

June 23, 2022 | Webinar





- Learning Objectives
- Meet the Speakers
- Presentations
- Audience Q&A

## Welcome

Kathleen McGrow, DNP, MS, RN, PMP

Chief Nursing Information Officer Microsoft







#### Learning Objectives



Define how Mixed Reality offers the opportunity to improve the provider experience and patient outcomes



Explore how immersive experience assists with training and education



Explain how the three-dimensional images allow a user to see/change the view of the world



Discuss how the nurse informaticist can champion MR innovation at their organization



#### Our Speakers



Eric Kamont

Director of Mixed

Reality Strategic

Partnerships,

Microsoft



Jared Kutzin, DNP

Associate Professor and
Senior Director of
Simulation at Icahn School
of Medicine, Mount Sinai



Amar Patel, DHSc, MS, NRP, CHSE, FSSH

Chief Learning Officer.

Chief Learning Officer,
CAE Healthcare



#### Eric Kamont

## Director of Mixed Reality Strategic Partnerships, Microsoft

 Celebrating over 18 years with Microsoft, Eric Kamont has established a reputation for enabling customers and partners worldwide to find success through incubating cutting edge technologies, such as Mixed Reality and IOT. Combined with industry backgrounds across manufacturing and retail, Kamont brings to bear a point of view that crosses both the technical and business landscape. Prior, he spent time in the AEC and gas turbine industries, landing successful startup initiatives in both. Self-funding his collegiate pursuits, Kamont holds a Bachelor of Science in Computer Science. In his spare time, he can be found competing in obstacle course races, working on his 3rd degree blackbelt, volunteering with the YMCA, honing his chef skills, and spending time with his wife and two boys.





#### Jared Kutzin, DNP, MS, MPH, RN, FSSH

Associate Professor and Senior Director of Simulation, Icahn School of Medicine, Mount Sinai

Jared is a registered nurse with advanced degrees in health policy and management, public health, leadership, and medical education. In 2017, Dr. Kutzin was inducted as a fellow in the Society for Simulation in Healthcare's Simulation Academy and in 2018 he served on the Baldrige Board of Examiners and was recognized as a fellow by the New York Academy of Medicine (NYAM). Previously, Jared served as the Chairperson for the Society for Simulation in Healthcare's (SSH) Certified Healthcare Simulation Educator (CHSE) Committee and as an Accreditation Committee Site Reviewer. Currently, he is a member of the SSH Board of Directors, the NYS Board of Nursing, and the NYS EMS Council. In addition, he is the Associate Editor for simulation for MedEdPORTAL, The Journal of Teaching and Learning Resources and on the Executive Editorial Board for the Journal of Emergency Nursing. Jared's research interests include educational methodologies, patient safety and quality, a how the built environment impacts care.





Transforming Healthcare Delivery through Mixed Reality

#### Amar Patel, DHSc, MS, NRP, CHSE, FSSH,

Chief Learning Officer, CAE Healthcare

 Prior to CAE, Dr. Patel served as the Executive Director of WakeMed Innovations and the Director of the Center for Innovative Learning at WakeMed Health & Hospitals. He was responsible for all innovation projects across the healthcare system from conceptual designs and theoretical applications to creating new technological solutions or developing new care delivery models. In addition to WakeMed Innovations, Dr. Patel was responsible for integrating technology-based educational programs to include human patient simulation, healthcare gaming, eLearning applications, simulation-based research, and hybrid education. He previously served as an Advanced Life Support Program Instructor and the Project Manager of Medical Simulation for the Maryland Fire and Rescue Institute at the University of Maryland, College Park. Dr. Patel is considered a simulation expert and much-published key opinion leader with 60+ abstract, article and textbook chapter publications to date. With a professional history that includes stints as a firefighter, paramedic, educator, researcher, and curriculum developer.





#### Last Things First...



#### The evolution of computing



Software on computers



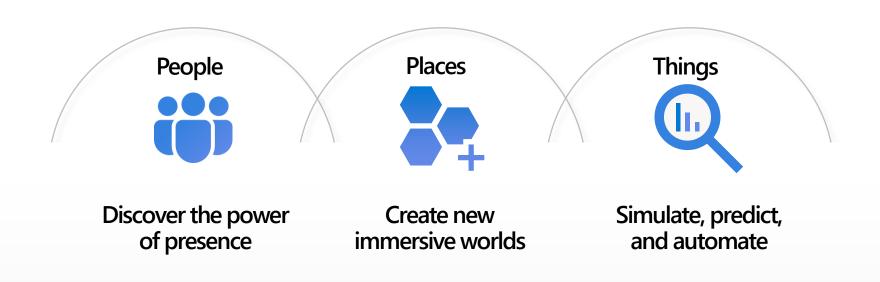
Applications on mobile devices



Experiences in the metaverse powered by mixed reality



# We believe metaverse is enabled by a set of technologies that allows for persistent, digital representations connected to aspects of the real world



Safe, secure, and open by design

#### Metaverse evolution

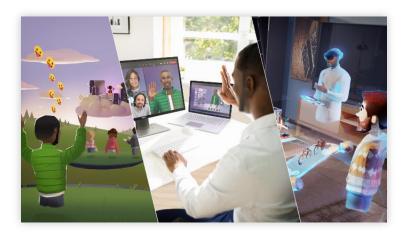
Today



**Tomorrow** 



**Future** 





Mixed Reality and Digital Twins



Shared immersive experiences infused with 3D content and real-time data



**Interoperable** immersive worlds

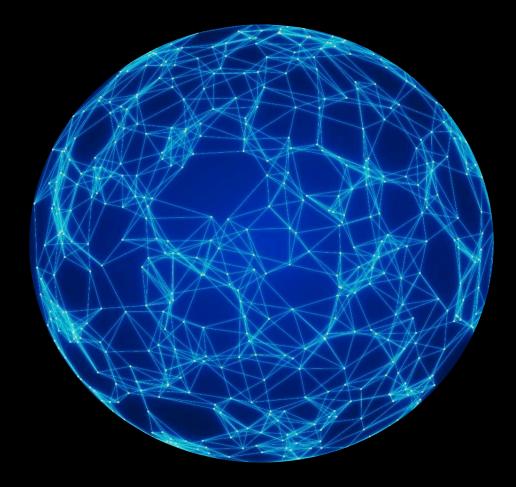


Physical

Mixed Reality

Virtual







Blending the physical and digital universes together Discover what's **possible** while staying grounded in the **familiar** 

#### **Proven Enterprise Use Cases**

As we have worked with thousands of enterprise customers the past several years, we have seen a handful of use cases that can be applied across many industries which have a **fast time to value (TTV)** and a **proven return on investment (ROI)**:

#### Training & Simulation



Train and onboard new employees faster than ever using a "learning by doing" approach.

Simulate scenarios so that your employees can practice how to respond in certain situations

#### **Guides & Task Management**



Walk employees stepby-step through guided experiences to help them complete tasks faster and more accurately then ever before.

#### Remote Assistance



Enable your employees to remote in an expert anytime they need it.

Experts can see and interact with the same environment as the employee as if they were there.

#### Design & Prototyping



Convert your CAD and BIM files to 3D digital twins to quickly iterate and collaborate on new product designs.

#### **Sales Assistance**



Carry less inventory and close large ticket sales faster by using mixed reality to showcase any configuration or customization to your customer.

#### **Contextual Data Overlays**



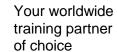
Make pertinent and real-time data available when and where it is needed, enabling your employees to make better, faster, more informed decisions.



#### CAE HEALTHCARE

Amar P. Patel, DHSc, MS, NRP, CHSE, FSSH Chief Learning Officer







#### Global Leader of Simulation Training







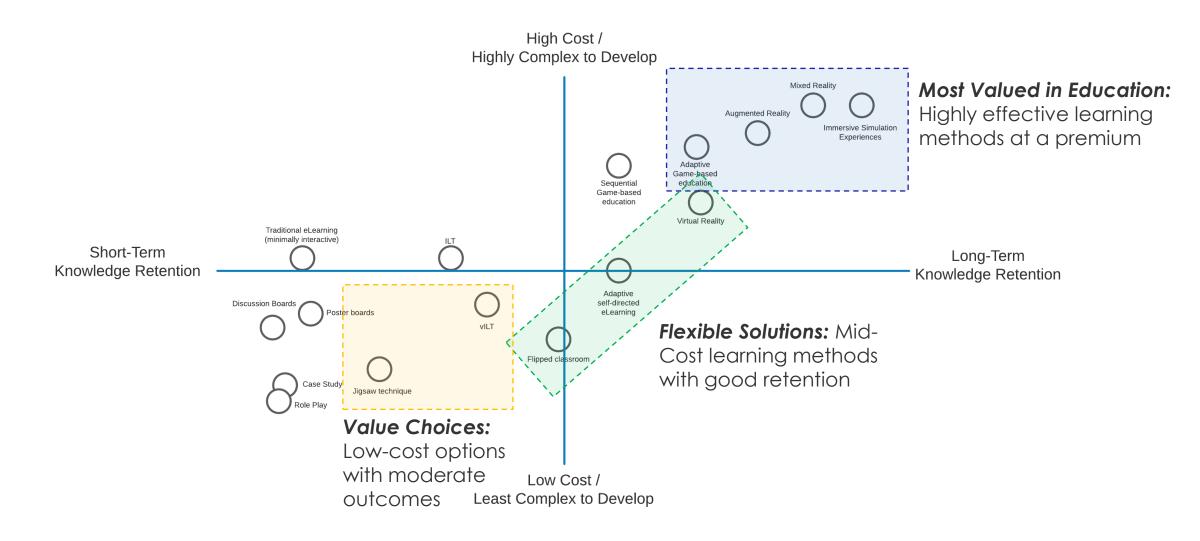
Making air travel safer

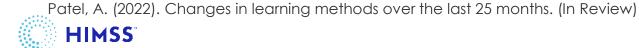
Allowing defense forces to be mission ready

Ensuring highly reliable healthcare



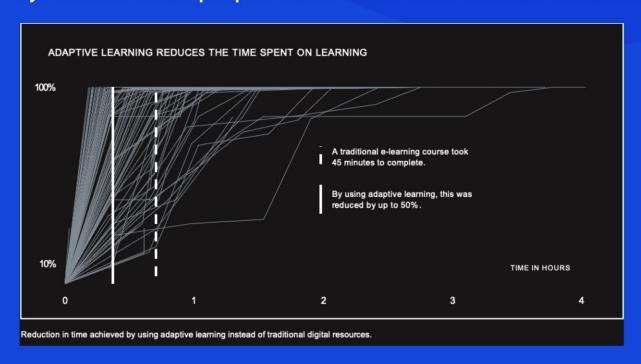
#### Changes in learning methods over the last 25 months





## Reduced Time to Proficiency

Via Al-driven, cutting-edge technologies and a scientific approach built over two decades, we have obtained a deep understanding of how the human mind learns at its best. We have collected billions of data points from millions of learners and curated thousands of books in the process. This expertise has led to hyper efficient formulas and systems that allow people to learn twice as fast as with traditional methods.

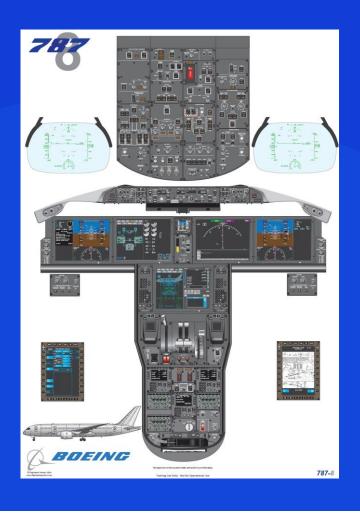


50%
Reduced Time to Profiency

100% Competent Employees



#### The Importance of Reference Tools



- Low cost but effective in communicating product layout/knobology.
- Double as reference material when training patients.
- Can display more information at one time than a laptop screen.
- Address the digital immigrants who still prefer to hold something.
- Act as a training aid which can be referenced. Something familiar to people and easy to understand.



**Case Study** 

#### CAE Anesthesia SimSTAT

American Society of Anest hesiologists

PARTNER

Solution for clinical practice and recertification



Real-world scenarios with responsive patient & inter-professional team



Fully functioning operating room



**Interactive Medical Equipment** 



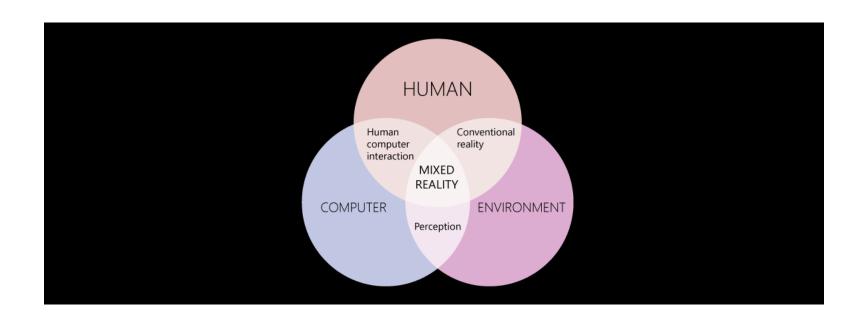
**Objective Measurement & Assessment** 

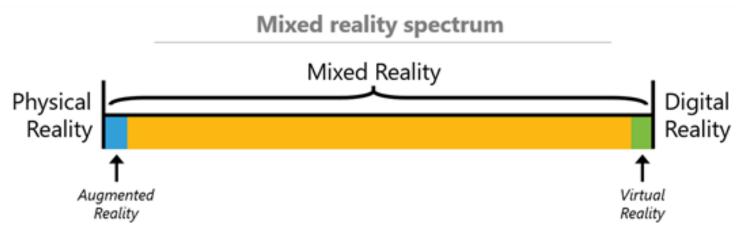


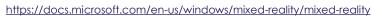
**Performance Feedback** 





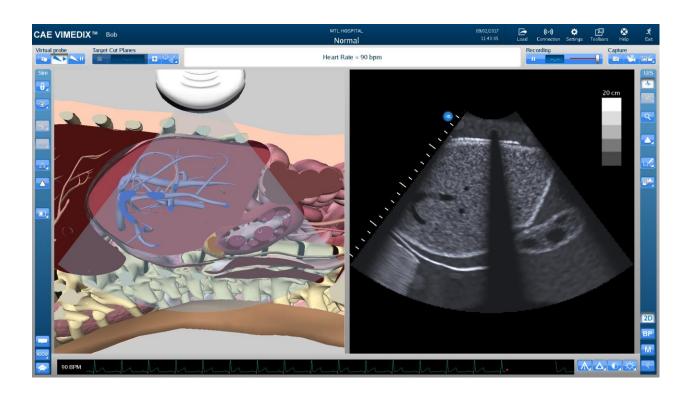








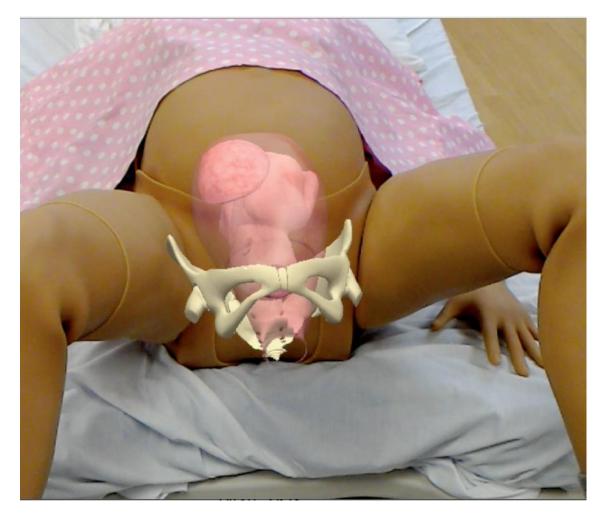
#### Vimedix AR







### Limitless learning









#### Thank you!





# Transforming Healthcare Delivery through Mixed Reality

Jared M. Kutzin, DNP, MS, MPH, RN, FSSH

Associate Professor, Emergency Medicine & Medical Education

Senior Director, STAR Center, The Mount Sinai Hospital



#### Disclosure

 The views and opinions expressed in this content are those of the author and do not necessarily reflect the official policy or position of The Mount Sinai Hospital, Icahn School of Medicine, the Society for Simulation in Healthcare, or any other organization the author is affiliated with.

• The author provides consultation to E-Learning Design Center and MedVREducation but has received no financial compensation for these services.



#### Virtual Reality





#### **Augmented Reality**



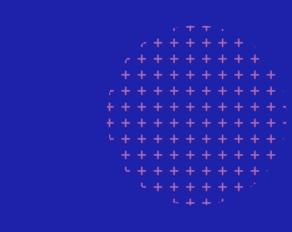




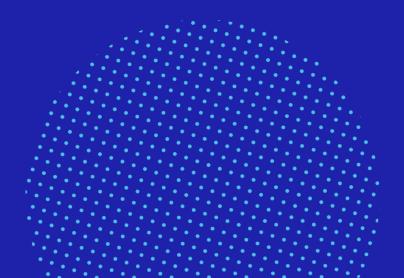
#### **Mixed Reality**





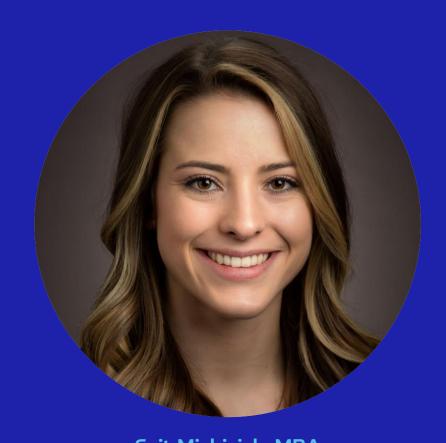


## Questions?





#### Questions? Contact us!



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## Thank you for joining!

