Augmented and Virtual Reality
From Games to Game Changing Developments

Program Description

Attendees will learn the benefits, capabilities, limitations and what’s next in Augmented Reality for general and medical applications. Three AR stations will be available for attendees to experience. So get there early!

Abstract

Augmented Reality has great potential in the field of patient care, recovery and surgery. Its functionality has the potential to benefit a range of clinical, educational and training applications.

Innovations like Microsoft HoloLens and the emerging mass market of AR/VR headsets indicate that these technologies will become familiar to surgeons and inevitably are integrated into their day-to-day practice.

The challenge of identifying compelling and valuable experiences for these modalities now begins along with validation of their benefits in all aspects of patient care.

Mark Belmarsh – Total Respawn Zombie Apocalypse Game

By employing AR and visualizing the normal movements of the paralyzed, lost or disabled limb, the brain can be reactivated.

This reactivation promotes re-learning of motor function and sensory processing, rewiring the brain when coupled to conventional rehabilitation therapies.

Imagine getting ready to perform surgery on a gall bladder. Technicians have loaded the patients 3D body scanned data into the system from CATScan and MRI sources; the augmented information and displays have been registered to the real world through a navigation system. And the predetermined surgical plan has been loaded into the AR system.

The surgeon puts on the head mounted display and now has a significantly expanded access to information, 3D anatomy display and guided tour of the operation.

For more information, go to mdgboston.org
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MDG Boston 2017–2018 Forum Schedule

Aug 16  11th Annual: Transitioning Into and Within the Medical Device Industry

Sep 13  Brain and Spinal Cord Injury: Current Status and the Future Hope for Concussion, Encephalopathy, Dementia and Paralysis

Oct 4  Augmented and Virtual Reality - From Video Games to Game Changing Developments

Nov 1  Medical Device Single Use Disposables

Dec 11  Body Shaping from the Outside

Jan 17  Advances in Lifesaving Pump Technologies

Feb 7  Wearables, Sensors

Mar 14  Health Information Technology - Clarity or Chaos

Apr 4  Success Strategies for Medical Device Startups

Apr 30  Genomics and epi-Genetics Impact on Developments in Medicine

Jun 4  Pathways to Market

Location: Regis College Fine Arts Center, Weston, MA

Member News

Welcome these New MDG Members:
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If you have any comments regarding this forum, please send them to MDGforums@MDGboston.org
Albert Kwon, MD
AUGMENTx Co-Founder
Dr. Kwon is a general pediatrician and anesthesiologist specializing in pain medicine. Drawing on his undergraduate experience at the MIT Media Lab in the Synthetic Neurobiology Group and his daily engagement with his patients, he sees AR as a powerful therapeutic tool. His company, AUGMENTx, was founded to create augmented reality enabled therapy for neurological rehabilitation of stroke, limb amputations, and rare chronic pain syndromes that otherwise have very limited treatment options.

Dr. Chen-Ping Yu
Phiar Co-Founder
Chen-Ping Yu is the CEO of Phiar Technologies developing AR navigation with artificial intelligence driver's assistance. He was previously a postdoctoral research fellow at Harvard University researching neuro-inspired deep learning. Prior to that and armed with an MS/PhD in Computer Science, he focused his research on computer vision and machine learning. He is the recipient of numerous honors and fellowships, including National Science Foundation. His AI research has appeared in top-tier venues in computer vision, machine learning, deep learning, cognitive science, and neuroscience.

Brent Glover
NovaRad, Director of Software Engineering
Brent is Director of Software Engineering for Novarad, a leader in healthcare IT and imaging solutions. He has been working in healthcare for nearly two decades, coding for more than half of that. He doesn’t believe there is a single path to expertise. Which is why he codes, learns, listens, promotes and influences all spheres of innovation within his reach. He blends strategic vision with operational and tactical know-how. He believes that technology is just now beginning to drive healthcare innovation and is excited to see what the future holds.

Gavin Bauman
Microsoft, Technical Evangelist
He’s given numerous technical talks at local events such as Boston Code Camp as well as national events like PAX East on game, mobile, and cloud app development. He’s got a passion for building robust client applications and educating the technical community on what he’s learned. When he’s not playing video games or out with his dog, he spends time dreaming up and building prototypes for the next big mobile app.

Mark Belmarsh
President Total Respawn
Total Respawn creates augmented reality (AR) shooter experiences for airsoft and paintball arenas. Our product line up will include everything from shooting your way out of the zombie apocalypse to a military themed AR shooter experience.

Co-Chairs

Jeffrey Karg
Boston Innovation helps entrepreneurs combine passion and planning to avoid running out of money before product development is complete. We specialize in products requiring HW, FW, SW, ME, & ID.

Brian Geisel
Brian Geisel is the CEO of Geisel Software, a leading Medical and Internet of Things development company that focuses on the IoT Confluence: Embedded, Web and Mobile Software.

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MDG Boston

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About MDG Boston

MDG is the professional association for career building, knowledge acquisition and mutual support for New England medical technology professionals.

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