

Nevs Letter

November 2022

XR Pediatrics



Welcome to XRPeds' first newsletter! The past few months have been quite busy, but exciting. We launched a new website, welcomed several new team members, presented at several AR/VR conferences, published papers, and started several XR research projects with several teams.

Meet The XR Pediatrics Team



Kimberly Hieftje, PhD Co-Director, XRPeds

Assistant Professor of Pediatrics, Yale



Randall Rode

Senior XR Technology Consultant



Asher Marks, MD

Co-Director, XRPeds Associate Professor of Pediatrics, Yale



Jake Shaker

Program Manager



Veronica Weser, PhD

Associate Director, XRPeds Associate Research Scientist



Joshua Rigsby Postgraduate Associate Game Designer

New Publications

Dr. Asher Marks, Co-Director of XRPeds, has been published alongside other Yale collaborators in JMIR Publications for his contributions to **Disinfection of Virtual Reality Devices in Healthcare Settings**.

- Medical applications of VR technology are increasing yearly.
- No standard operating procedure for disinfection exists to ensure patient safety.
- Disinfection can be achieved through use of either isopropyl alcohol or quaternary ammonium products.



XR Pediatrics Events

Presentations

- Serious Play 2022
 June 14th, 2022
- International Association of Gaming Advisors
 Summit 2022
 - June 27th, 2022
- Using Education to Prepare the NHS and Social Care Workforce to Deliver the Digital Future
 July 10th, 2022
- XR Brain Jam at Games For Change
 July 11th, 2022
- Games for Change 2022
 - July 13th, 2022

- SIGGRAPH 2022
 July 25th, 2022
- HBCU Technology Conference 2022
 September 14th, 2022
- SRNT Webinar
- October 12th, 2022AWE and IVRHA EU 2022
 - October 17th 21st, 2022
- Unity For Humanity
- November 2nd, 2022
- Connecticut Association of School-Based Health
 Centers Conference
 - November 8th, 2022

AWE & IVRHA Conferences

This month, XR Pediatrics Co-Directors Asher Marks and Kimberly Hieftje were in Lisbon, Portugal, attending the AWE and IVRHA conferences as speakers and track hosts. Dr. Marks presented on his work with young cancer patients and conducting VR support groups in partnership with Foretell Reality, a NY-based company that provides a HIPAA compliant VR social space for support groups. Dr. Hieftje hosted a track at AWE to highlight the many uses of immersive technology in education and professional training.



AR/VR Medical Demos

On October 18th, Randall Rode hosted an AR/VR Medical Demo in the School of Medicine library showcasing the current clinical applications of XR technologies. The showcase was a knock-out success! With a variety of VR and AR experiences to demonstrate, guests found themselves completely immersed in the headsets. Guests left very positive and optimistic about the blossoming virtual reality space and its application to health sciences!



Project Features

InvestiDate

- Despite advances in HIV prevention efforts in the US, Black adolescents continue to be disproportionately affected by HIV in the United States.
 - Black adolescents comprise 42% of all new HIV diagnoses.
 - Barriers such as racism and colorism significantly disadvantage Black adolescent girls' achievement of positive health outcomes relative to White girls, indicating a need for the development of HIV and STI prevention strategies specifically tailored for Black adolescent girls.
- This past year, our team developed and evaluated InvestiDate as a multiplayer digital experience focused on STI and HIV prevention for Black adolescent girls.
- With gameplay storylines and activities sourced directly from focus groups with Black teen girls, InvestiDate is culturally tailored experience designed especially for this population.
- Players engaged in simulated relationships and assessed the risk associated with various sexual partners utilizing a point system to reward demonstration of knowledge.
- We recently completed a pilot randimized controlled trial with 80 Black teen girls, following them for 4 months to see if playing InvestiDate impacted behaviors associated with HIV/STI testing and condom use.



DeBug VR

- NICUs provide essential services in ensuring the health and safety of our most vulnerable newborns.
- A rising threat that can spell catastrophe for the medical care provided in the NICU is the spread of infection.
- In a partnership with Yale Hospital and the CDC, XR Pediatrics is part of a larger team that is developing DeBug VR an engaging game-based XR intervention to reduce the spread of infection.
- Players assume the role of a hospital staff member or family member and practice behavioral skills related to infection prevention and control in the NICU



Upcoming Events

- Columbia's Innovations in Simulation Summit
 - On November 11th, 2022 Drs. Hieftje and Marks will be presenters at Columbia's annual Innovations in Simulation Summit in New York City.

