THE GATHERING OF HEALTHCARE SIMULATION TECHNOLOGY SPECIALISTS

27-29 June 2018
University of the Sunshine Coast

With special event partners:
Dear Simulation Specialists,

Thank you for joining the largest, most innovative and passionate group of individuals dedicated to supporting healthcare simulation around the world. 2018 is a great year for all of us. Now in its 8th year, the Gathering of Healthcare Simulation Technology Specialists (SimGHOSTS) has firmly established itself as a global simulation training partner. We are proud to have signed 10 international affiliations with Society for Simulation in Healthcare SSH, INACSL, ASPiH, PASSH, IPSS, Simulation Australia, ASPE, SimONE, HiMSS, Patient Safety Movement and collaborated with 3 SESAM conferences last year in Lebanon, Singapore, and France.

We are here to serve and connect hundreds of like-minded individuals to collaborate and learn at our hands-on training conferences. In 2018 we are building our research focus in our work achieve our mission and vision. We have already established a great team and have two research projects underway to gain a better understanding of issues that affect us all as a community.

Every member of the healthcare team is vital to delivering optimal patient care, just as you are critical to creating a consistently positive training environment. We aim to be your advocate in the industry and make sure you are empowered to use your knowledge to deliver cost-effective, user-friendly educational environments that facilitate quality learning.

Thank you for taking the step to make yourself a better facilitator, educator and team member by joining us in our quest. We hope you meet someone new, reignite your passion for simulation and share your experiences with the world! Please take your time here to learn something new and meet with other members, both novice, and veteran. We hope you discover, as we have, that Simulation Specialists are friends you want to meet and keep. Our conferences are unique to the world of simulation because we connect you directly with our vendor industry partners to learn how to use and service their products. Make sure to take advantage of this opportunity to learn tips and tricks directly from the source.

We look forward to meeting you in class, at social events, and online at SimGHOSTS.org. Welcome to SimGHOSTS!

Ferooz Sekandarpour
President: The Gathering of Healthcare Simulation Technology Specialists
MEETING OBJECTIVES

As a special event for 2018, SimGHOSTS are collaborating with Simulation Australasia, the Australian Society for Simulation in Healthcare (ASSH), and the Serious Games Showcase & Challenge to hold SG18AUS - a combined conference that is expected to attract an audience of program directors, clinicians, educators, academics, technology/operations specialists and game developers. The program highlights the use of technology and virtual environments in simulation programs and aims to bring the spectrum of simulation professionals together to improve learner and patient outcomes.

Simulation Australasia and ASSH have dedicated education and research tracks in the program, and there is also a dedicated Serious Games, VR and AR track which will include demonstrations from the Serious Games Showcase and Challenge Australasia finalists.

The SG18AUS Program includes:

- Manikin programming, maintenance and repair
- AV System design, integration and consolidation
- Audio and Video production and editing techniques
- IT Networking and debugging
- Simulation-based education methodology and debriefing
- Serious Games, Virtual Reality and Augmented Reality

WHO SHOULD ATTEND SG18AUS?

Educators, game developers, academics and clinicians who are interested in learning more about how to use different simulation modalities to achieve learner outcomes and how to collect data on simulation activities.

Anyone involved in the technical operation of a clinical simulation lab, or clinical educators who contribute to the day-to-day operation of simulation spaces. This includes AV and IT department staff members who are responsible for supporting the simulation program.

Anyone evaluating clinical simulation technology for purchasing decisions should strongly consider attending as many major industry vendors exhibit and/or demonstrate their range at SimGHOSTS events.
REGISTRATION INFORMATION

Pricing

Early Bird - Ends May 31st USD$425/AUD$570
Regular - USD$575/AUD$770

Pre-Conference Workshops:

Advanced Moulage USD$200/AUD$250
InSPIRE Debriefing USD$155/AUD$200
Creating a 'Safe Container' for Simulation-Based Learning USD$200/AUD$250
The Trade Game: Understanding Human Factors in Teamwork USD$200/AUD$250
Serious Game Design USD$140/AUD$180
Virtual Reality Principles and Practices USD$140/AUD$180

Take advantage of a special membership package to both Simulation Australasia and SimGHOSTS at a discounted rate of AUD$280, as saving of $90. See page 8 for details of membership benefits

Refunds

Refunds are not available after 1 June 2018. Registrations are transferable.

HOST: University of the Sunshine Coast

The University of the Sunshine Coast was the host of SimGHOSTS' inaugural Australian event in 2014 and we are delighted to return to their campus for our 2018 event. USC's innovative physical spaces cater for shifts in student mobility, changes in teaching practice and the adoption of new and emerging technological tools. SG18AUS will be based in the new $37m Engineering Learning Hub with one of only four 3D CAVE2 visualization studios in the world. The campus also features state of the art simulated nursing and paramedicine labs; specialized computer, science, manufacturing and design labs; and a range of interactive digital learning spaces.

LEARN MORE ABOUT USC HERE
SIMULATION AUSTRALASIA & ASSH
The SimAust divisions - Australian Society of Simulation in Healthcare (ASSH), Professional Development Committee (PD) and Human Dimensions in Simulation (HDS) are collaborating with SimGHOSTS to infuse research and workshops designed to engage our members. Simulation Australasia (SimAust) is an organisation changing the way companies and institutions do business. As a membership based organisation they are the leading Simulation based organisation in Australasia. They are strategically placed to engage and enable innovative and interactive collaborations across industry and government, with a track record in research, collaboration and networking. SimAust is working toward transforming the world of education and work based training through creating government approved certification of simulation.

To find our more about Simulation Australasia visit their website at www.simulationaustralasia.com

SERIOUS GAMES SHOWCASE & CHALLENGE
Serious Games are games that are about more than just entertainment - they impart knowledge while entertaining. Serious Games highlight issues, improve education, and help to explain or solve complex problems. Serious Games can make complex topics more easily understood and engaging. The challenge is a fantastic opportunity for national and international exposure among the simulation and IT communities and is open to serious gaming application of all technologies including: PC, Mobile, Console, VR, AR, and Wearable tech.

The 7th annual Serious Games Showcase & Challenge Australasia (SGSCA) will be held at SimGHOSTS 2018. The winner of the SGSCA is awarded automatic entry to present their game at the International Serious Games Showcase & Challenge held at the I/ITSEC conference in Orlando, Florida.
SimGHOSTS has partnered with Mantra and Breakfree Resorts for discounted accommodation options in Mooloolaba. Discount codes are provided upon registration. All event bus transfers will depart from Mantra Mooloolaba Beach.

**MANTRA MOOLOOLABA BEACH**
Located on the Esplanade, Mantra Mooloolaba Beach features 191 fully furnished one, two and three bedroom suites each with a private balcony and sweeping ocean or garden views. Onsite you will find a variety of dining options as well as many leisure facilities including two swimming pools, a spa, sauna and fully equipped gym. All suites have a kitchen and washer/dryer. A supermarket is accessible through a short walkway.

**MANTRA SIROCCO**
Self-contained two and three bedroom apartments all with large balconies and spectacular views over Mooloolaba Bay. Accommodation offers sleek and modern design with marble and granite finishes in both the kitchen and bathrooms. Outdoor architecturally designed heated swimming pool for guests to enjoy a dip no matter what the season.

**MANTRA ZANZIBAR**
Suitable for groups, Mantra Zanzibar on the Sunshine Coast offers exotic inspired architecture and features two and three bedroom apartments all with a strong East African influence expressed through its decor and soft furnishings. Other standard features across all apartments include a fully equipped kitchen, laundry, cable TV, DVD player, internet access and hairdryer.

**BREAKFREE ALEXANDRA BEACH**
A pleasant 20 minute stroll from Mantra Mooloolaba Beach, BreakFree Alexandra Beach has affordable 1, 2 and 3 bedroom self-contained apartments with everything you'll need for your Sunshine Coast stay. There are lots of great cafes, bars and restaurants in Alexandra Heads, within easy walking distance of the resort.
TRANSPORT

FROM MAROOCHYDORE AIRPORT (MCY)
Sunshine Coast Cabs operate to and from the Airport. The taxi rank is located in front of the arrivals hall of the terminal. A taxi service fee of $2.00 applies to all taxis picking up passengers from the Sunshine Coast Airport Terminal. There is no charge for set down at the airport. A taxi fare to Mooloolaba is approximately $35-$40.

Con-X-Ion provides a shuttle service to local hotels. Shuttle stops are located at a designated coach stop, to the left on exit from the arrivals hall. For bookings and specific routes contact the shuttle bus service directly www.con-x-ion.com. A one-way shuttle from the airport to Mantra Mooloolaba Beach is $18.

TransLink operates a public bus service that services Sunshine Coast Airport. The bus stop is located to the right of the arrivals hall. Fares range between $3.25-$4.70 for a one way trip to Mantra Mooloolaba Beach. For timetables and travel planners visit the TransLink website or telephone 13 12 30.

FROM BRISBANE AIRPORT (BNE)
Airlink Transfers operate private transfers between Brisbane Airport and Mooloolaba. Prices are available from www.airlinktransfers.com.au

Con-X-ion operates a shuttle service from Brisbane Airport. A one-way transfer to Mantra Mooloolaba Beach is $53 and a return transfer is $100. For bookings and luggage information go to www.con-x-ion.com

TransLink operates a public transport service from Brisbane Airport. Journeys begin at the domestic and international train stations. Fares range between $30-$40 for a one way trip to Mantra Mooloolaba Beach. For timetables and travel planners visit the TransLink website or telephone 13 12 30.

BETWEEN MOOLOOLABA AND UNIVERSITY OF THE SUNSHINE COAST
SimGHOSTS will provide free return bus transfers between Mantra Mooloolaba Beach and University of the Sunshine Coast for the beginning and end of each conference day.

If you require transport during the day please use the TransLink public bus service. The bus stop is 300m from the Mantra Mooloolaba Beach, walk north on the Esplanade to Meta Street. Bus 615 will take you to University of the Sunshine Coast. Approximate journey time is 20 minutes and fare ranges between $3.25-$4.70.
The learning doesn't stop at SimGHGOSTS events! Join 3,000 simulation champions from around the world communicating every day answering questions, sharing tips, and creating content! An annual SimGHGOSTS.org website subscription provides significant benefits for you and your simulation team:

**Video Library** - Over 300 recorded sessions from previous SimGHGOSTS events are immediately available to watch. Topics range from AV system design to daily utilization increases and from manikin programming to moulage creations. Instantly learn from global experts and leading vendors!

**Weekly or Daily Newsletter** - Follow all the latest updates with a weekly newsletter of blog and forum topics.

**Forums Discussion Groups** - Ask questions, gather answers, search for previous conversations, and share your successes on the only permanently saved forums dedicated to the operation of simulation technology.

**Document Database** - Download community provided templates, example forms, policy and procedure guides, job descriptions, standard operating procedures, tutorials, and more.

**Simulation Jobs Board** - Post and read open positions specifically related to healthcare simulation.

**Online Training Programs** - Exclusive to subscribers is access to our online training courses covering a range of simulation technology operational topics.

Simulation Australasia provides a forum for those involved with simulation, to allow for discussion and distribution of information, and to further advance the research, development and use of simulation technologies and practices in Australasian society, industry, academia and government.

Simulation Australasia Membership Benefits include:

**1. Connect with clients and associates**
- Attend regular networking events and seminars across Australasia at member rates
- Exhibit at and/or attend our annual national conferences at member rates
- Participate in Simulation Australasia online networking forums (LinkedIn groups)
- Promote your organisation on the Simulation Australasia website and (if relevant) in the Industry Capability Directory with logo, profile and link

**2. Stay current in the profession**
- Receive regular eNews, updates on Specialist Community activity, new members and other opportunities to your inbox
- Complimentary access to research papers online

**3. Create opportunities for career advancement**
- Access to Simulation Australasia Professional Certification process at member rates
- Access to professional development courses or seminars at member rates (may be run by 3rd parties)
- Nominate yourself or staff to join the Thought-Leaders group or Specialist Community committees

**4. Provide you with exclusive member benefits**
- Give feedback through regular surveys and direct communication so we become the voice of Australasian Simulation industry to government, media and other industries globally
- Partner with Simulation Australasia, e.g. host a SimAust event in your facility
- Receive one vote at Simulation Australasia AGM (student members excluded)
- Receive a Simulation Australasia membership certificate
- Receive marketing opportunities in our publications at member rates
- Liaise with our Partnerships Manager to tailor a partnership specific to your needs.

**JOIN OR RENEW DURING SG18AUS EVENT REGISTRATION**

SimGHGOSTS.ORG  @SimGHGOSTS  #SG18AUS
EDUCATION MANAGEMENT SOLUTIONS

Whether you’re running a single simulation event or thousands, EMS’ SIMULATIONiQ™ uses the latest web-based technologies to simply and seamlessly capture, organize, and analyze the full spectrum of your clinical skills and mannequin-based simulation efforts. Working alongside subject matter experts, we serve as the driving force behind numerous consumer-centered innovations that continue to move the medical simulation software markets forward with breakthrough technologies. The results are tangible: greater visibility, usability, marketability, adaptability, scalability, measurement, and ROI.

EMS is dedicated to innovation. We offer complete turnkey solutions for clinical simulation training environments that include high stakes exams with standardized patients and integration with simulators, audio-video technology, design and planning, engineering, configuration, installation, training, and one-call support for both software and hardware.

With our suite of Companion Apps, users can maximize the return on investment (ROI) of their SIMULATIONiQ solutions to optimize simulation center operations with technology that’s right at their fingertips. And in support of the curriculum of tomorrow, we’re excited to announce our newest innovation: Competency.AI. This powerful artificial intelligence platform tracks learner performance across competencies and Entrustable Professional Activities (EPAs), helping institutions manage and measure their Competency Based Medical Education curriculum.

Although the success of your clinical simulation program largely relies on educators, as simulation management technology and methodology become more sophisticated, it is important for sim tech staff to be an ongoing partner for planning, maintenance, and problem solving. Sim tech staff need to interact not only with internal stakeholders but also with external simulation center management companies such as EMS to ensure that: all communication lines are open to make sure needs and requirements are perfectly clear; continuous engagement is maintained before, during, and after a clinical simulation center is built; common ground is established between the educators, planning, and tech staff for successful outcomes.

Since its founding in 1994, EMS has established a reputation for delivering superior and dependable solutions and providing unprecedented levels of customer service and support keeping our customers on the leading edge.

www.SIMULATIONiQ.com

SimGHOSTS.ORG  @SimGHOSTS  #SG18AUS
B-Line Medical SimCapture and LiveCapture systems provide a scalable platform for healthcare education, exclusively dedicated to improving education and enhancing quality of care. Our certified B-Line Medical regional Distributor VisionX Technologies in partnership with B-Line Medical regional staff will be available throughout the conference to discuss your requirements.

Founded in 2005, B-Line Medical is exclusively dedicated to offering solutions that help healthcare professionals and educators improve the delivery of healthcare and enhance quality of care. Focused on the capture, debriefing, and assessment of healthcare training and clinical events, B-Line Medical’s robust, yet easy-to-use web-based solutions are in use at over 500 institutions in 35 countries.

Please visit our booth to learn more about B-Line Medical’s great SimCapture platform.

MedicFX is a small New Zealand company run by special fx artists with over 30 years of experience with creating prosthetics applications and props. Our products range from small cancer lesions to full abdominal models and from premature babies to geriatric faces and bellies and everything in between.

Abacus dx supplies a wide range of quality clinical skills trainers, simulation and healthcare education products. Our brands include Gaumard, Simulab, Ambu, Nasco, Adam, Rouilly and Koken.
TraumaSim® has been providing medically accurate products and services designed to simulate traumatic injury and medical conditions for the training and assessment of medics and healthcare professionals since 2008. The use of simulation in modern healthcare and emergency training is a vast and growing industry as students in healthcare are no longer able to simply access clinical placements for practice of skills.

Mentone Educational offers a comprehensive range of simulators to aid in the teaching of key procedures and practices. Offering products sourced from USA, Germany, UK and Japan, our range of premium simulation products are suitable for all teaching requirements.

Laerdal is dedicated to our mission of Helping Save Lives. For more than 50 years, Laerdal has remained a world leader for healthcare education, training, and therapy solutions. In collaboration with renowned researchers and prominent partners, Laerdal develops products, programs, and services designed to increase survival, improve patient outcomes and reduce medical errors.

As a trusted name in healthcare, Mediquip continues its tradition of quality products in our range of patient simulators, ultrasound trainers, task trainers, and practice medications. Mediquip provide the most advanced, high quality simulation equipment available, are passionate about medical education and dedicated to providing the best customer service.
WEDNESDAY 27 JUNE: PRE-CONFERENCE

8:30 AM - BUS LEAVES MANTRA MOOLOOLABA BEACH HOTEL

9:00 AM - FULL DAY PRE-CONFERENCE WORKSHOP - Details page 22

P1 InSPIRE Debriefing Workshop (EXP) USD$155/AUD$200

12:00 PM - LUNCH BREAK IN EXHIBITION SPACE

12:30 PM - BUS LEAVES MANTRA MOOLOOLABA BEACH HOTEL

1:00 PM - HALF DAY PRE-CONFERENCE WORKSHOPS - Details pages 22-23

P2 Advanced Moulage Workshop (EXP) USD$200/AUD$250

P3 Creating a "Safe Container" for Simulation-based Learning (EXP) USD$200/AUD$250

P4 The Trade Game: Understanding Human Factors in Teamwork USD$200/AUD$250

P5 Serious Game Design Workshop USD$140/AUD$180

P6 Virtual & Augmented Reality Principles and Practices USD$140/AUD$180

5:00 PM - PRE-CONFERENCE WORKSHOPS CONCLUDE

5:15 PM - BUS RETURNS TO MANTRA MOOLOOLABA BEACH HOTEL

(EXP) denotes intermediate level experience in the subject matter is recommended for this session
THURSDAY 28 JUNE - CONFERENCE DAY 1

8:00 AM - BUS LEAVES MANTRA MOOLOOLABA BEACH HOTEL
8:30 AM - REGISTRATION & EXHIBIT SPACE OPEN
9:00 AM - WELCOME AND CONFERENCE OPENING
9:30AM - KEYNOTE PRESENTATION
Professor William Runciman, Professor of Patient Safety, President - Australian Patient Safety Foundation Lecture details page 24
10:30 AM MORNING BREAK & EXHIBIT SPACE OPEN

11:00 AM CONCURRENT SESSIONS BLOCK A
A1 - Discover Advances in AV Technology with VisionX and B-Line
AV and IT Track Session details page 25
A2 - Midwifery Education using 3D Technology (EXP)
Education & Research Track Session details page 25
A3 - An Approach to Hospital Planning and Design Using Discrete Event Simulation
Operations & Management Track Session details page 25
A4 - Manikin Maintenance and Troubleshooting Tips (EXP)
Simulation Technology Track Session details page 25
A5 - SimPharm: a Virtual Pharmacological Platform
Simulation Design & Methodology Track Session details page 25

12:00 NOON CONCURRENT SESSIONS BLOCK B
B1 - Simulation Design for Undergraduate Programs (EXP)
Simulation Design & Methodology Track Session details page 25
B2 - Custom Moulage Solutions (EXP)
Moulage and Simulated Patient Track Session details page 26
B3 - Starting a New or Expanding a Sim Centre - What are the Requirements?
Operations & Management Track Session details page 26
B4 - Therapeutic Games for Adults and Children
Serious Games, VR & AR Track Session details page 26
B5 - Poster Presentations
Session details page 26
B6 - CAVE2 Experience
Serious Games, VR & AR Track Session details page 26

12:50PM LUNCH BREAK & EXHIBIT SPACE OPEN

(EXP) denotes intermediate level experience in the subject matter is recommended for this session
2:00 PM - SIMULATION AUSTRALASIA/ASSH PLENARY LECTURE
Leading The Way: How Technology is Changing Health Professional Education
Assoc. Prof. Patrea Andersen
Lecture details page 24

3:00 PM - AFTERNOON BREAK AND EXHIBIT SPACE OPEN

3:30 PM - CONCURRENT SESSIONS BLOCK C
C1 - SCHI Simulation Centre Tour
Simulation Technology Track
Session details page 27
C2 - Sculpting, Molding and Casting Workshop
Moulage and Simulated Patient Track
Session details page 27
C3 - How to Innovate in Your Simulation Centre (EXP)
Operations & Management Track
Session details page 27
C4 - USC Simulation and Visualisation Facility Tour
Serious Games VR & AR Track
Session details page 27
C5 - Scenario Development Workshop
Simulation Design & Methodology Track
Session details page 27
C6 - USC Student Panel: Serious Games, Simulation, and Health
Serious Games, VR & AR Track
Session details page 27

5:20 PM - DAY 1 PROGRAM CONCLUDES

5:30PM - BUS RETURNS TO MANTRA MOOLOOLABA BEACH HOTEL

6:30 PM - OPENING RECEPTION
Almost-Barefoot Bowls and BBQ at the Mooloolaba Bowls Club

9:30 PM - OPENING RECEPTION CONCLUDES

(EXP) denotes intermediate level experience in the subject matter is recommended for this session
FRIDAY 29 JUNE - CONFERENCE DAY 2

8:15 AM - BUS LEAVES MANTRA MOOLOOLABA BEACH HOTEL

8:30 AM - TEA & COFFEE SERVED IN EXHIBIT SPACE

9:00 AM - GOLD SPONSOR EMS PLENARY LECTURE
Measuring Competency Based Medical Education: Using Artificial Intelligence to Analyse Curriculum
Linda Penrod
Lecture details Page 24

10:00 AM - MORNING BREAK AND EXHIBIT SPACE OPEN

10:30 AM - CONCURRENT SESSION BLOCK D

D1 - "What did they say? I cannot hear it" Audio Capture - What Do You Require?
AV & IT Track
Session details page 28

D2 - Programming with Trends and Handlers in LLEAP (EXP)
Simulation Technology Track
Session details page 28

D3 - Introduction to Moulage Workshop
Moulage and Simulated Patient Track
Session details page 28

D4 - How Can I Run More Complicated Scenarios? (EXP)
Operations & Management Track
Session details page 28

D5 - USC Simulation and Visualisation Facility Tour
Serious Games, VR & AR Track
Session details page 28

D6 - Debriefing: The Perks of Planning and Best Practice Process
Simulation Design & Methodology Track
Session details page 28

12:20 PM - LUNCH & EXHIBIT SPACE OPEN

12:45 PM - Innovation Showcase Demonstrations

(ESP) denotes intermediate level experience in the subject matter is recommended for this session
FRIDAY 29 JUNE - CONFERENCE DAY 2

1:30 PM - CONCURRENT SESSION BLOCK E
E1 - Ensuring Fit for Purpose: Your AV Problems Solved (EXP)
AV & IT Track
Session details page 29
E2 - Data Capture from Simulation Technology - What Can I Capture and How Can I use it?
Simulation Technology Track
Session details page 29
E3 - Meeting the Needs of Simulation Technical Training Across the State of Victoria, Australia (EXP)
Operations & Management Track
Session details page 29
E4 - Gamification in Undergraduate Programs (EXP)
Serious Games, VR & AR Track
Session details page 29
E5 - Rethinking Improvement in Hospital Care: A Systems Based Approach
Education & Research Track
Session details page 29
E6 - CAVE2 Experience
Serious Games, VR & AR Track
Session details page 26

2:30 PM - CONCURRENT SESSION BLOCK F
F1 - Evaluating Technology For Purchasing Decisions (EXP)
Simulation Technology Track
Session details page 30
F2 - Training & Employment of Simulation Technology Professionals (EXP)
Operations & Management Track
Session details page 30
F3 - Virtual and Augmented Reality
Serious Games, VR & AR Track
Session details page 30
F4 - Serious Games and Visualisation as a Teaching Tool (EXP)
Education & Research Track
Session details page 30
F5 - Creating Fidelity: Authentic Simulation-based Teaching, Learning & Assessment
Simulation Design & Methodology Track
Session details page 30
F6 - CAVE2 Experience
Serious Games, VR & AR Track
Session details page 26

3:30 PM - SERIOUS GAMES PLENARY & AWARD WINNERS
Presentations from the Serious Games Showcase and Challenge Finalists and Winners Announced

4:30 PM - CLOSING CEREMONY
Presentation, Poster & Innovation Showcase Award Winners Announced

5:00PM - BUS RETURNS TO MANTRA MOOLOOLABA BEACH HOTEL
(EXP) denotes intermediate level experience in the subject matter is recommended for this session

SimGHOSTS.ORG   @SimGHOSTS   #SG18AUS
INVITED SPEAKERS

Professor Bill Runciman  
BSc (Med), MBCH, FANZCA, FJFICM, FRCA, HKCA, PhD  
Professor of Patient Safety, Centre for Population Health Research, University of South Australia  
President - Australian Patient Safety Foundation

Bill Runciman retired 10 years ago as Head of Anaesthesia and Intensive Care at the Royal Adelaide Hospital and University of Adelaide, after 38 years of clinical practice, to conduct full-time patient safety research. He is now working in the area of appropriateness of care and how to counter inappropriate care. He has been active in this area for over 30 years, and is currently on his second NHMRC Program and CRE Grants. He is currently in the process of flying the shoreline of Australia (North island first) in a gyroplane and is co-owner of the first electric nanolight aircraft in Australia.

Assoc Prof PATREA ANDERSEN  
Academic Director of Simulation and Visualisation  
University of the Sunshine Coast

Patrea has extensive academic experience in Nursing Education. As Academic Director for Simulation and Visualisation for the University of the Sunshine Coast (USC), Patrea’s primary focus is on utilisation of advanced technologies in simulation and curricula integration. Her research interests include clinical education, simulation (including visualisation and game-based simulation, AR and VR applications), patient safety, professional competence and issues impacting on the preparation and development of health professionals. Her success is evidenced in collaborative research grants, publications, keynote and referred conference presentations. Patrea was the recipient of an OLT citation for leadership in simulation in 2015 and is a Higher Education Academy (HEA) Senior Fellow. Patrea holds a number of governance roles. She is Portfolio Leader for Simulation and Practice Learning for Undergraduate Programmes for the School of Nursing, Midwifery and Paramedicine at USC, Chair of national simulation education collective InSPIRE and the Australia Region Chair for SimGHOSTS.
INVITED SPEAKERS

Linda Penrod
Product Marketing Manager
Education Management Systems
Linda Penrod joined EMS as Product Marketing Manager in March 2017. Her responsibilities focus on Marketing, Product Management and Sales developing markets, product launches and marketing-sales initiatives.

Linda has over 25 years of experience in sales and marketing management. Having worked for high-tech sector corporations such as EDS, Digital Equipment-HP, and privately-held companies.

Linda is a graduate of Moravian College and the Wharton School at the University of Pennsylvania. She has served on the Board of the Boy Scouts of America and has been actively involved in organizations such as the March of Dimes, the Leukemia & Lymphoma Society, The Beacon Group, The Forum of Executive Women and The Pyramid Club.

POSTERS & INNOVATION SHOWCASE

POSTERS
Digital posters will be on display in the exhibition space on Level 2 of Building H2 throughout the event. Poster presentations will take place in session B5. Use the event app to place your vote for the Community Choice Award.

INNOVATION SHOWCASE
The Innovation Showcase will take place during the lunch break on Day 2 of the event on the Ground Floor of Building H2. Use the event app to place your vote for the Community Choice Award.
PRE-CONFERENCE WORKSHOP FACILITATORS

NOLA PEARCE

Nola holds a Bachelor of Nursing, Hyperbaric Nursing Certificate, Graduate Diploma in Critical Care Nursing and a Cert IV in Training & Assessment. After 16 years of nursing she moved to First Aid training where she specialised in curriculum development and Advanced First Aid training for the maritime and process industries. As Director of TraumaSim®, she undertook Moulage and Disaster Exercise Design training in the U.S and drew on her medical background to bring realism to the art of casualty simulation. TraumaSim® has been providing medically accurate products and services designed to simulate traumatic injury and medical conditions for the training and assessment of medics and healthcare professionals since 2008.

Dr STEPHEN GUINEA

Steve is the Faculty Coordinator of Health Simulation at Australian Catholic University. Steve's focus within this role is on the establishment of a sustainable simulation program across the 16 Health disciplines that make-up the Faculty of Health Sciences. Steve's research and project interests include: the use of simulation to bridge the theory-practice gap in health education; exploring ways simulation may prepare undergraduate students better for learning during the clinical placement; and building capability in the use of simulation practice.

Steve coordinates the Australian Catholic University Graduate Certificate in Healthcare Simulation Education and is the Secretary of InSPIRE.

Dr ELYSSEBETH LEIGH

At various times Dr Elyssebeth Leigh has been a public servant, Human Resources manager and consultant - and at all times an educator. Her career traversed the domains of finance, entertainment, administration and academic research. She has published books and articles on simulation in workplace learning and tertiary education, and designs games and simulations for large and small groups. Her abiding interest in education helps her travel the world as an educator and games designer, and drives her commitment to making education relevant to the immediate needs of learners, while holding true to traditions of equity and fairness. She enjoys exploring options for learning, and challenges her students to undertake learning in modes they had never considered ‘educational’. As an academic she has taught and researched at Australian Universities. She is now teaches and researches in Finland preparing students for employment in the kinds of complex, uncertain and exhilarating environments created by evolving knowledges, contexts and relational expectations. She is a life member of Simulation Australasia, and was awarded the 2017 Ray Page Lifetime Simulation Achievement Award. She served on the Simulation Australasia Board for some time and was re-elected to the Board in 2017.
Dr Colleen Stieler-Hunt joined the School of Communication and Creative Industries at the University of the Sunshine Coast in the role of associate lecturer, Serious Games, in February 2016. Colleen has had more than 20 years of experience in education. She has worked as a secondary school teacher and a teacher advisor for the State Education Department. Her doctoral research has made recommendations for advancing the use of digital game-play in primary and secondary school classrooms to establish supportive and engaging classroom learning environments. Colleen contributed to the development of Orbit, a child sexual abuse prevention computer game. Colleen lectures in the Serious Games program.

Dr UWE TERTON
After a wide range of multimedia experience in the USA and Germany, Dr. Uwe Terton moved to Australia with his family in 2001 and has since taught in the area of new media design at several Australian universities including CQU, QUT and USC. His main interest is in Design and Education and how both can complement each other. His research projects are focused on computer supported education that makes use of technology to reach out to different types of learners as well as disadvantaged learners. One of Uwe's past projects 'Jumping the Fence' is a computer-based educational adventure that challenges children to interact with the natural environment through exploration and experimentation. The latest research project ‘My Tertiary Education Day’ is using an electronic book to encourage young learners to reflect on their aspirations. Dr. Terton is currently the Program coordinator for the Bachelor of Design course at USC.

Katryna designed the Interactive Narrative minor within the Serious Games Design degree at the University of the Sunshine Coast and currently lectures within the program. She is also completing her PhD as a member of University of the Sunshine Coast's ENGAGE lab. She holds a Master's degree in Psychology with a focus on how video games can foster health-promoting behaviors. Her current research focus is on how narrative within games effects identification, self-efficacy and agency in adolescent and young adult females.
LIAM McGUIRE
Liam McGuire is an Executive Director of Opaque Media Group, and has led a number of high-profile VR projects in the simulation, health & education spaces such as the award-winning Virtual Dementia Experience. He has worked with a diverse range of clients such as Microsoft, Google and The Royal Children’s Hospital Melbourne to develop industry-leading tools and experiences, in addition to collaborating with NASA to develop VR astronaut training tools. Liam has also worked in the entertainment space on the VR game “Earthlight”, leading the Art Team in producing high fidelity representations of the ISS in orbit and the Neutral Buoyancy Laboratory training pool.
Debriefing is perceived as the phase of simulation where most meaningful learning occurs. Yet for many facilitators, facilitating debriefing creates significant uncertainty and anxiety. In this interactive workshop, participants will explore the use of debriefing models, develop a debriefing framework, and apply several strategies and techniques known to enhance confidence and decrease anxiety when facilitating reflective learning through debriefing.

Facilitators:
Assoc Prof Patrea Andersen
Dr Stephen Guinea

Moulage improves the outcome of training by adding realism to health care scenarios and forcing participants to face realistic injuries and situations in a controlled learning environment. Moulage in nursing, medicine, paramedical and allied health simulations improves learning and take up of skills. During this workshop we will teach more advanced moulage techniques. Prerequisite is the TraumaSim Moulage Course.

Topics covered include bone creation, freehand sculpting of more complex wounds, open fractures, skin flaps and problem solving.

Facilitator: Nola Pearce

The workshop will focus on the role of technicians and facilitators as collaborative teams in setting up and ensuring that safety is fully considered throughout the process of choosing, implementing and debriefing simulations. Questions of “Who? How? What to consider when managing the interactions in a simulation?” will all be considered.

Facilitator: Elyssebeth Leigh

An AUD$100 discount is available to Simulation Australasia members who wish to attend this workshop. Please contact SimAust for your discount code to use during registration.
THE TRADE GAME: UNDERSTANDING HUMAN FACTORS IN TEAMWORK
The workshop will explore how games can be used to introduce behaviours of effective teams and explore debriefing methods appropriate for all types of simulation. Many people feel uncomfortable discussing failures in teamwork and others find it difficult to immerse into simulations. Games provide an opportunity to break the ice and introduce how failures in teamwork can produce poor outcomes without bringing people’s technical skills into question.

Learning Objectives:
Understand how games can simulate complex situations
Experience how games can be used to introduce debriefing
Understand how human factors influence team behaviour

Facilitator: Assoc Prof Marcus Watson

An AUD$100 discount is available to Simulation Australasia members who wish to attend this workshop. Please contact SimAust for your discount code to use during registration.

SERIOUS GAMES DESIGN WORKSHOP
Increasingly, serious games are becoming a standard way to teach, inform, and raise awareness. Serious games are designed for a purpose beyond entertainment. In this workshop you will develop ideas for a serious game centred on health, develop a plan for creating a serious game, and create a playable serious game paper prototype.

By the end of this workshop participants will be able to:
• Participate in the serious game ideation process
• Develop a plan for a serious game
• Create a playable serious game prototype.

Facilitators:
Dr Uwe Terton
Ms Katryna Starks
Dr Colleen Stieler-Hunt

VIRTUAL REALITY PRINCIPLES AND PRACTICES
What are Virtual and Augmented Reality and why should you be paying attention to them? VR and AR have well and truly entered the mainstream – with HTC, Oculus, Google, Apple, Microsoft and Sony all releasing technologies to help set them up as drivers in these spaces. During this workshop we shall look at the how VR and AR has come about, principles of design in VR/AR, and how they can augment traditional methods of information delivery. We will also look at other aspects such as feedback, and the innovative ways we can use these new mediums to better engage with our audience over traditional means.

Learning Objectives:
• Discover the past and imagine the future of VR/AR
• Principles of design in VR/AR
• How VR/AR can augment traditional methods of information delivery

Facilitators:
Rodney Robins
Liam McGuire  Sam Hussey

SimGHOSTS.ORG  @SimGHOSTS  #SG18AUS
PLENARY LECTURES

KEYNOTE PRESENTATION
With the exception of anaesthesia, the notion of preventable healthcare-related harm barely existed 50 years ago. When I graduated in 1969 medical defence insurance premiums were less than one dollar a month. Two ground-breaking studies (a large-scale medical record review and an incident reporting study), both in the USA, heralded the start of a progressive wave of interest and activity in the area of iatrogenic harm. Nationally representative Australian initiatives in anonymous incident reporting and medical record review on things that go wrong in healthcare brought the issue of patient safety to the attention of the public and triggered a series of standing national committees to lead policy in this area. Momentum grew after national reports in the USA, the UK and Australia. In 2004, The World Alliance for Patient Safety was set up under the auspice of the World Health Organization, with a number of themes directed at member countries. A large number of projects are now underway. However, these are generally poorly coordinated, under-powered and/or unsustainable and not generalizable. A framework will be proposed for how efforts may be integrated, with the role simulation could play.

LEADING THE WAY: HOW TECHNOLOGY IS CHANGING HEALTH PROFESSIONAL EDUCATION
Technology is recognised for its ability to increase engagement and enhance understanding. Acknowledging this, Education and other industries are investing significantly in infrastructure, and the development of immersive simulation, visualisation and other technologies to replicate substantial aspects of the real world. This includes utilising wraparound 3D virtual environments, head mounted displays and augmented imagery with holographs. Matching the clarity and resolution of the human eye these technologies provides the sense of being able to “touch” what is not there and provide glimpses of reality which until now have been confined to the imagination. This allows users to move about and view images from different perspectives creating a learning environment that is very different to traditional approaches. This presentation showcases examples of technology used in education and other industries that illustrate how cutting-edge technology is being used. It will explore some of the challenges and barriers to success, lessons learnt and provide insight into future developments in this space.

MEASURING COMPETENCY BASED MEDICAL EDUCATION: USING ARTIFICIAL INTELLIGENCE TO ANALYZE CURRICULUM
A hands on demonstration and lecture on innovative Artificial Intelligence driven solutions for migrating medical education programs to a Competency Based Medical Education (CBME) model. Real world examples of the power of machine learning to harvest assessment data across multiple subsystems including education curriculum assessments such as BlackBoard and ExamSoft and active simulation based practice (including A/V). Automate data mapping against core competency measurements such as Entrustable Professional Activities (EPAs), Body Systems, or Skills. Leverage existing data to create a machine learning driven proactive monitoring system for learner performance, creating learner remediation plans and reviewing individualized learner “fingerprints” of competency mastery across all educational phases.
The Faculty of Health Sciences at the University of Adelaide commissioned the new Adelaide Health and Medical Science building in 2016. With an investment of over 300 million dollars, this outstanding and award winning building boasts an entire level dedicated to one of the most advanced clinical simulation and assessment environments in Australasia. Technologically enhanced education is delivered by complimenting state-of-the-art audiovisual architecture with the largest Enterprise Plus installation of B-Line Medical in Australia and New Zealand. B-line Medical have invited Adam Montagu and Michael Gilmour from Universities of Adelaide to speak on their experience leading the University and their teams through implementation of this unique space. They will address design, change, resistance and benefits from a personal, technical, business and educational perspective.

There will be ample opportunity for questions from the panel consisting of Michael Gilmour, representatives from B-Line Medical, VisionX Technologies and Adam Montagu himself.

Student responses to the introduction of 3D visualisation artefact - Michelle Gray

There is a lack of suitable resources to teach some complex subjects within midwifery. Book illustrations do not provide comprehensive illustrations of normal reproductive anatomy and physiology. Many people find it difficult to understand concepts from text book readings alone preferring visual representations. The Midwifery artefact provides students with a visual representation of the internal anatomical layers of the muscles, blood vessels and placenta and membranes. The artefact simulates the expulsion of the placenta and membranes and shows the normal physiological response of how the blood vessels contract to prevent haemorrhage. Furthermore the artefact demonstrates how the uterus involutes as it retracts back into the pelvis over the course of the postnatal period. This podium presentation will share with the audience the challenges and achievements that were experienced by the team in the creation and implementation of this midwifery artefact.

Student responses to the introduction of 3D visualisation technology in midwifery education - Terri Downer

An essential part of midwifery education is to facilitate the linking of theory to practice. Some events such as physiological involution of the uterus are impossible to recreate. A 3D artefact to assist students with their understanding of the anatomy and physiology of the uterus, placenta and membranes and the physiological processes that simultaneously occur after the birth of a baby was developed. Student responses towards this new technology were investigated and the results will be shared.

A3 An Approach to Hospital Planning and Design Using Discrete Event Simulation- Luke Wainwright

This presentation will provide insight into the necessary skills, knowledge and attitudes needed to use simulation to prepare for the redevelopment of an emergency department. It provides a summary of the techniques used to deliver in-situ simulation as a risk mitigation strategy, the techniques used to deliver immersive and pause and discuss scenarios to test and evaluate clinical equipment, and an overview of the techniques used to create a scale reconstruction of a clinical area.

A4 Manikin Maintenance and Troubleshooting - Nick Brauer

In the course, the presenter will review manikin software and hardware components and will explore a series of problem-solving techniques. Regular maintenance and troubleshooting often requires the utilization of software and hardware testing. Learn how to find troubleshooting tools in the manikin software, how to conduct regular maintenance and repair solutions.

A5 SimPharm: A Virtual Pharmacological Platform - Linda Penrod

ISIMULATIONQ SimPHARM™ is an innovative virtual pharmacological platform that replicates the professional practices of actual pharmacists. SimPHARM provides a web-based simulated environment that is consequence-free, safe, and relevant for students to learn about how drugs interact with human physiology based on age, pre-existing conditions and other medications. The platform also focuses on critical decision making for pharma including motivations, processes, and consequences.
BLOCK B (cont)

B2 Custom Moulage Solutions: Innovative Moulage Technique for high fidelity re-sternotomy simulations in an acute care hospital - Tom Hallahan
The development of a high fidelity re-sternotomy scenario is unique to Epworth HealthCare, and has been an invaluable training tool for staff performing a highly technical task. As a patient safety tool, it has identified areas for improvement and driven changes in practice. This presentation shares how it is done to create a successful realistic, fully immersive experience for the ICU team.

Moulage to enhance high fidelity surgical simulation to enhance surgeons’ engagement - Tess Vawser
Our challenge was to immerse our trauma surgeons into a high fidelity team-based simulation scenario, as part of the Definitive Surgical Trauma Care (DSTC) course for Surgeons, Anaesthetists and Perioperative nurses. Our aim was to keep the surgeons engaged and focused on a surgical technique while a critical event was unfolding within the simulated OR. This presentation will present our challenges and successes in providing fidelity for the surgeons utilizing hybrid simulation techniques.

B3 Starting a New or Expanding a Sim Centre - What are the Requirements? - Chris Carpenter
This workshop will de-mystify the technical aspects of setting up or expanding a simulation facility. It will allow users to understand their needs and express their requirements to specialists and vendors when specifying works and purchases. It will also warn of commonly made mistakes and provide hints to help make your facility run smoother.

B4 Therapeutic Games for Adults and Children (cont.) Designing Games for Behaviour Change: A Psychological Approach - Jane Cocks
Serious Games for health-related behaviour change is a rapidly growing niche area of the games industry. It is also gaining traction and legitimacy in health contexts as interventions. Given the need for rigorous evidence-based methods in health contexts, this current research is focussed on developing a structured and evidence-based approach to designing games for health related behaviour change. This presentation will provide an overview of the psychology of behaviour change, with a specific focus on the transtheoretical model of behaviour change. It will then outline a methodology to integrate this model of change with game design elements including mechanics, dynamics, and aesthetics, and design techniques. And finally, propose a preliminary framework for designing games for health-related behaviour change.

B5 - Poster Presentations
Perspectives on the Use of Technology and Video Games for Physical Activity in Patients with Chronic Obstructive Pulmonary Disease - Joshua Simmich
Does a Symbiotic Culture of Bacteria and Yeast (SCOBY) Represent a Cost Effective, Culturally Sensitive Alternative to Traditional Models (pads, pork belly) for Teaching Suturing and Excision, with Similar or Superior Fidelity? Amber van Dreven
Hybrid Simulator for Bleeding Fistula - Michael Blunt
The Reality of Simulation - Chris Woods

B6 CAVE2 Experience
The term CAVE is an acronym for CAVE Automatic Virtual Environment. Originally developed by the Electronic Visualisation Laboratory (EVL) at the University of Illinois in Chicago, CAVE 2 creates a 320 degree 3D wraparound virtual environment. On this tour experience the sense of being able to “touch” what is not there and move about to view images from different perspectives. Different to traditional teaching approaches see how USC is using CAVE 2 to create new immersive learning experiences to simulate aspects of the real world, increase student engagement, enhance understanding and support students achieve learning outcomes.

An Emotion Regulation Intervention Using Virtual Pets for Children with ASD - Afnan Bashir
Autism Spectrum Disorder is a non-degenerative disorder which lasts throughout life and presents ongoing challenges. Individuals diagnosed with ASD struggle with effective emotional regulation, which overall affects ASD symptoms and strategies used to improve them. In addition to psychological interventions used, animal-assisted interventions have shown their potential to improve ASD symptoms. This presentation demonstrates the use of Gross’ model of emotional regulation and foundations of animal-assisted therapy to design and evaluate an augmented reality virtual pet as an ASD intervention.

Therapeutic Games for Adults and Children - Developing Orbit: A Child Sexual Abuse Prevention Game - Colleen Stieler Hunt
Orbit (www.orbit.org.au) is a game for 8-10 year olds that aims to help prevent child sexual abuse. It was designed by the University of the Sunshine Coast’s Engage lab and created by an external team of developers. Our aim was to keep the game focused on a surgical technique while a critical event was unfolding within the simulated OR. This presentation shares how it is done to create a successful realistic, fully immersive experience for the ICU team.

An Emotion Regulation Intervention Using Virtual Pets for Children with ASD - Afnan Bashir
Autism Spectrum Disorder is a non-degenerative disorder which lasts throughout life and presents ongoing challenges. Individuals diagnosed with ASD struggle with effective emotional regulation, which overall affects ASD symptoms and strategies used to improve them. In addition to psychological interventions used, animal-assisted interventions have shown their potential to improve ASD symptoms. This presentation demonstrates the use of Gross’ model of emotional regulation and foundations of animal-assisted therapy to design and evaluate an augmented reality virtual pet as an ASD intervention.

Therapeutic Games for Adults and Children - Developing Orbit: A Child Sexual Abuse Prevention Game - Colleen Stieler Hunt
Orbit (www.orbit.org.au) is a game for 8-10 year olds that aims to help prevent child sexual abuse. It was designed by the University of the Sunshine Coast’s Engage lab and created by an external team of developers. Our aim was to keep the game focused on a surgical technique while a critical event was unfolding within the simulated OR. This presentation shares how it is done to create a successful realistic, fully immersive experience for the ICU team.

An Emotion Regulation Intervention Using Virtual Pets for Children with ASD - Afnan Bashir
Autism Spectrum Disorder is a non-degenerative disorder which lasts throughout life and presents ongoing challenges. Individuals diagnosed with ASD struggle with effective emotional regulation, which overall affects ASD symptoms and strategies used to improve them. In addition to psychological interventions used, animal-assisted interventions have shown their potential to improve ASD symptoms. This presentation demonstrates the use of Gross’ model of emotional regulation and foundations of animal-assisted therapy to design and evaluate an augmented reality virtual pet as an ASD intervention.
BLOCK C

C1 Sunshine Coast Health Institute Tour
The Sunshine Coast Health Institute (SCHI) is a newly opened dedicated education, training and research facility, contributing to the Sunshine Coast University Hospital’s (SCUH) vision of ‘providing excellent care through collaboration, enquiry and education’. Teaching and research is integral to the SCUH and the SCHI plays a vital role in training the next generation of staff, fostering innovation and maintaining a culture of ongoing clinical audit, redesign and clinical practice improvement to support excellence in the delivery of care.

The SCHI’s dedicated and integrated research and learning spaces provide opportunities for health professionals to participate in teaching, research and clinical practice in one convenient location.

For more information visit the SCHI website.

C2 Sculpting, Molding and, Casting Workshop - Nola Pearce
This workshop is for more advanced moulage technicians who wish to create replicable silicone wounds

In a 2 hour period we will cover:
• Products, tools and techniques to sculpt a simple wound
• Products and tools to create a reusable silicone mould from the sculpt
• Products and techniques to make a silicone cast from the mould.
• Participants will have time to create a small basic mould to keep.

This workshop will not have adequate time to demonstrate painting of the finished product but will cover information on this process.

We will be using skin safe silicones and professional grade products.

The final cast from the participants mould is unlikely to be set in time for the completion of the session but will be available for collection later.

C3 How to Innovate in Your Simulation Centre - Emma Horsfield & Kirrian Steer
Innovation is a buzzword that can be found in most strategic plans but are you really innovating or are you just keeping up? Learn how to stimulate creative thought and identify why some great ideas never see the light of day. This workshop will provide participants with an opportunity to explore and utilise tools, techniques and strategies for generating, developing and pitching their ideas to get more support for innovation in their simulation program.

C4 USC Simulation and Visualisation Tour
Take a guided tour of University of the Sunshine Coast’s award-winning simulation and visualisation spaces. Visit the Learning and Teaching Hub, featuring several clinical simulation spaces and the Immerse Studio, where 6 overlapping projectors provide 270-degree viewing across an area more than 20 metres in length and at greater than 4K definition.

The tour continues in the Engage Research Lab which features the Collaboration Studio, designed to foster a collaborative approach to learning in a technology rich environment, with a huge 3D enabled screen on which multiple sources (table and student laptops, tablets, phones) can be shared.

The highlight of the tour is a CAVE2 experience. One of only four of its kind in the world (one in Melbourne and two in the USA), the CAVE2 provides a near-seamless, 320-degree, immersive, panoramic 3D virtual environment. CAVE2 was developed by the Electronic Visualisation Laboratory at the University of Illinois Chicago and was commercialised by Mechdyne Corporation. It is the next generation of virtual, immersive visualisation technology.

C5 Scenario Development Workshop
In this interactive workshop you will learn the basics of scenario development, - the who, what, where, when, how and why of developing great scenarios.

Aimed at the novice to intermediate level, this workshop will provide you with the skills to be able to create a scenario that meets the needs of you as a facilitator, technicians and faculty members and most importantly the needs of your participants.

You will have the opportunity to create a scenario from scratch, discuss common pitfalls and barriers and explore the different elements of scenario development.

C6 USC Student Panel: Serious Games, Simulation, and Health
University of the Sunshine Coast (USC) post-graduate and undergraduate students share and discuss their work and research in health-related serious games and simulation. Health topics to be explored will include girls’ representation in games, chronic illness, response to sexual assault, overcoming grief, organ donation awareness, and homelessness.

Serious games are more than ‘just a game’. With new opportunities emerging in education, healthcare, marketing and more, this diverse field is one of the fastest growing and most exciting sectors of the games industry.

USC is the first Australian university to offer an undergraduate degree program in Serious Games.
CONCURRENT SESSIONS

BLOCK D

Within simulation, a big component of the work that we do is the streaming, capture and playback of AV ‘audio-visual’. We focus and spend big on the VISUAL with cameras and devices for the video component to be able to see what the participants are doing – but often neglect the first part – the AUDIO side. Many times we find that this oversight causes issues with the success of our programs, especially when the conversation is the key component. This workshop will show you how to identify and implement strategies for improved audio capture and broadcast in a simulation centre.

D2 Programming with Trends and Handlers in LLEAP - Nick Brauer
LLEAP programming styles vary from person-to-person and may also depend on scenario complexity. The workshop will explore various programming methodologies including trends, handlers, images, labs, etc. Trends and Handlers are valuable but often overlooked tools for automating scenario progression and manikin responses. This workshop will take LLEAP users through the process of creating a “semi-automated” scenario.
*NOTE* Course participants MUST have experience programming scenarios in LLEAP. This course is not suitable for beginners.

D3 Introduction to Moulage - Nola Pearce
Moulage improves the outcome of training by adding realism to health care scenarios and forcing participants to face realistic injuries and situations in a controlled learning environment. Moulage in nursing, medicine, paramedical and allied health simulations improves learning and take up of skills. During this introductory workshop we will teach techniques suitable for live role players or manikins. This workshop will cover simple techniques used to create injuries and the application and presentation of premade wounds.

D4 How Can I Run More Complicated Scenarios? - Chris Carpenter
Aimed at intermediate sim technicians, this workshop outlines a process of planning, preparing and executing a more complicated scenario. Relatively simple scenarios usually follow a protocol or a predictable timeline. Complicated scenarios have multiple decision points, multiple treatment options or possibly multiple technical functions for the sim technician to be in control of. While complicated scenarios do require more concentration on the part of the simulation technician to be run successfully, the educational outcomes can be enormous with participants able to explore various treatment options, practice non-technical skills and inter-disciplinary cooperation. This workshop will run through the planning, preparation and execution of a complicated scenario to build up a process to reach the scenario objective while minimising the risk of scenario failure.

D5 USC Simulation and Visualisation Tour
Take a guided tour of University of the Sunshine Coast’s award-winning simulation and visualisation spaces. Visit the Learning and Teaching Hub, featuring several clinical simulation spaces and the Immerse Studio, where 6 overlapping projectors provide 270-degree viewing across an area more than 20 metres in length and at greater than 4K definition.
The tour continues in the Engage Research Lab which features the Collaboration Studio, designed to foster a collaborative approach to learning in a technology rich environment, with a huge 3D enabled screen on which multiple sources (table and student laptops, tablets, phones) can be shared.
The highlight of the tour is a CAVE2 experience. One of only four of its kind in the world (one in Melbourne and two in the USA), the CAVE2 provides a near-seamless, 320-degree, immersive, panoramic 3D virtual environment. CAVE2 was developed by the Electronic Visualisation Laboratory at the University of Illinois Chicago and was commercialised by Mechdyne Corporation. It is the next generation of virtual, immersive visualisation technology. CAVE2 is housed in the heart of the USC campus, with its own bespoke building featuring ample room for ‘break-out’ sessions and separate presentations areas. An increasing number of academics are utilising these facilities to provide immersive visualisation experiences for students. Academics work closely with the Simulation and Visualisation team, including in-house designers and developers, to produce innovative, customised visualisation artefacts for teaching tools.

D6 Debriefing: The Perks of Planning and Best Practice Process - Emma Horsfield
Debriefing simulation sessions can be daunting, especially when you are just starting out in simulation based education. However, debriefing need not be terrifying for either the participants in the simulation or the person/s facilitating the brief. This interactive workshop will assist with the development of the knowledge and skills required to effectively plan, prepare and conduct debriefing sessions. This session is for beginner to intermediate level simulationists.
**E1 Ensuring Fit for Purpose: Your AV Problems Solved**

How to solve a $100k problem without a budget for under $1k not once, but twice! - Neil Fainges & Aaron Armstrong

This presentation addresses the learnings from two incidents that occurred during important clinical simulation sessions where major components of equipment failed, but the events needed to continue. During this interactive presentation we will discuss and look at various ‘out of the box’ ways that can be achieved when things go south and you need to find stop-gap solutions for both small and large venue AV capture and playback - without a large outlay.

**Unobtrusive Audio Visual Capture for ‘Sensemaking’**

The Clinical Skills Development Service (CSDS) engages in projects that involve capturing and understanding how work within clinical environments is actually performed as a precursor to the development and implementation of workplace improvements. This is achieved methodologically through using non-invasive audio visual (AV) technology to capture actual clinical scenes. When capturing this footage, it is imperative that our ‘footprint’ remains as small as possible to ensure that work is completed as organically as it would in our absence. This presentation demonstrates the use of unobtrusive cameras and describes their value as a data collection tool.

**E2 Data Capture from Simulation Technology: What Can I Capture and How Can I Use It? SimGHOSTS Team**

This presentation is aimed at the intermediate technology specialist or educator. Learn about the data that is collected by different technologies found in a simulation centre, identify how to extract it and discover how it can be used for troubleshooting, research, budgeting, assessment, quality improvement and more.

**E3 Meeting the needs of simulation technical training across the state of Victoria, Australia - Tess Vawser & Tom Hallahan**

A Victorian state based simulation project was undertaken to expand the capacity of the health and human services workforce through 5 activity areas:

1. Development of a communication hub
2. Implementation of a learning needs analysis
3. Redevelopment of resources
4. Development and delivery of simulation technician training
5. Development and delivery of education and training programs

This presentation will focus on the simulation technician training aspect undertaken as part of the project by Epworth.

**E4 Gamification in Undergraduate Programs**

Health students’ experiences using a Serious Game to learn environmental hazard and safety assessments in community and residential healthcare settings - Suzanne Volejnikova-Wenger

Serious games in health education are growing in popularity as a curricular delivery and assessment method. There is a dearth of research specifically focused on participants’ perception of a serious game as a way of learning. Utilising the serious game ‘Safe Environments’ to learn environmental hazard and safety assessments in healthcare settings, this research gives a voice to students’ experiences and provides valuable information for academics, and developers for serious games in health.

**Pre-semester on-line laboratory safety inductions using virtual reality and gamification in Nursing and Midwifery - Patrea Andersen**

This presentation will showcase the development of a new laboratory and simulation induction using a serious game for nursing and midwifery students. Results from initial testing and challenges will be included. The presentation will be of interest to simulation technicians, academics and clinicians who are seeking new innovative approaches for safety induction.

**Virtual simulation: innovative global learning opportunities using avatars - Pauletta Irwin & Rosanne Coutts**

With a commitment to global citizenship this research project piloted and evaluated a collaborative international problem based virtual simulation as part of an undergraduate nursing degree program. Represented as avatars, students used the virtual world of Second Life to meet up and work with students and academic staff from Providence College, Rhode Island, United States. This discussion will present the qualitative findings and lessons learned from the project.

**E5 Rethinking Improvement in Hospital Care: A Systems-Based Approach - Dylan Campher**

The Systems and Safety Improvement (SSI) program is an initiative aimed at revitalising safety, quality and systems improvement functions and bringing best evidence to practice, in a partnership model with hospital-based front-line clinicians. This program is informed by emerging evidence in healthcare improvement, complex systems theory, human factors and safety engineering, all of which strongly indicate that conventional thinking and improvement tools are often proving insufficient.

**E6 CAVE2 Experience**

See page 26 session B6
F1 Evaluating Simulation Technology for Purchasing Decisions - SimGHOSTS Team
Simulation professionals have significant influence or decision-making responsibilities regarding purchase of simulation technology. This interactive presentation details an approach to evaluating technology to ensure that the needs of all stakeholders are considered and that a strong business case exists for the purchase.

F2 Training and Employment of Simulation Professionals Challenging existing practice: Growing technical officers' roles in simulation - Paulett Irwin
Growth of student nurse enrolments in Australia has increased the pressure on existing simulation infrastructure to a point where alternate methods of simulation delivery are being considered. An additional driver of change is the sessional nature of employment for those working in simulation in the tertiary sector. Strategies for change must consider the large cohort numbers, be cost effective and cognisant of a transient simulation staff. This presentation describes the findings from a project that piloted and evaluated the employment of technical officers to operate simulation equipment in a nursing program.

F3 Virtual and Augmented Reality
The Rise of No Code Platforms and the Democratisation of Serious Games - Leon Young
No-code platforms are disrupting how we use game technology to solve health challenges. The rise of platforms that combine simple visual app building interfaces with powerful AR, VR and big data capabilities means anyone without coding knowledge can create serious game solutions for health. This democratization not only amplifies the generation of health data, but when paired with deep learning technology, turns these platforms into intelligent, predictive systems able to diagnose health issues.

A virtual reality platform to train and prepare paramedics for mass/multi casualty incidents - Peggy Dykstra
Man-made or natural disasters can cause devastating injuries to large numbers of people and disastrous losses to entire communities. It is imperative paramedics are effectively trained to respond. Current mass/multi-casualty (MC) training practices have been described as ‘clunky’, costly, and highly-resource intensive. This presentation showcases the first development phase of a 360 degree, fully immersive, virtual reality environment suitable for training paramedics to respond to MC events that is part of a project investigating the extent to which virtual reality may substitute for the live simulation experience. A new simulation learning model utilising augmented reality and part-task training - Kim Heaslip & Clinton Henderson
This presentation showcases a means to provide adventures in learning by blending inexpensive part-task training models with augmented immersive technology. Our chest tube insertion learning solution comprises a disposable flat-pack task trainer and personalised link to an engaging online learning package and virtual reality experience. The responsive design of this model puts learning in the hands of the individual, tailored specifically to their needs, and is easily accessible whenever it is required.

F4 Serious Games and Visualisation as a Teaching Tool Using 3D Immersion to Teach Threshold Concepts in Anatomy and Physiology - Ann Framp & Julie Hanson
The study investigated the value of exposing first year undergraduate nursing students who were studying anatomy and physiology to three different immersive teaching technologies: (i) Anatomage™ (ii) CAVE2™ and (iii) holographic imagery. The study evaluated the perceived benefits in understanding course material and satisfaction with the teaching approach using new technology. This presentation will showcase the immersive teaching strategies and share the results of the study.

F5 Creating Fidelity: Authentic Simulation-based Teaching Learning and Assessment - Irwyn Shepherd, Amanda Davies, Elyssebeth Leigh
This workshop explores knowledge required to connect educational theory and simulation-based learning practice. Participants experience an action research methodology to extend their knowledge about uses of simulation for learning and assessment. Key outcomes include: improved personal capacity for making the argument for simulation as a valid teaching, learning and assessment strategy; increased knowledge of educational concepts contributing to integration of theory and practice; enhanced awareness of how to blend theories and practices to enhance learning outcomes.

F6 CAVE2 Experience
See page 26 session B6