DEVELOPING THE FUTURE WORKFORCE FOR MS&V
• IMPACT ON ECONOMIC DEVELOPMENT / STEAM EDUCATION  
  (MS. JULIE SIGMON, OMAHA STEM ECOSYSTEM DIRECTOR)

• REMOTE & DISTRIBUTED LEARNING  
  (MR. TODD SAYLOR, USSTRATCOM)

• WORKFORCE DEVELOPMENT IN MS&V  
  (MR. RICHARD MADRID, ECS)
Ms. Julie Sigmon

Julie Sigmon has experience in the education, non-profit and business field for over 40 years. She is currently serving as the Director for the Omaha STEM Ecosystem, an organization that encompasses a rich array of STEM learning opportunities that ensure Omaha is meeting the future skills, processes, and thinking necessary to be a successful STEM professional. Previous experiences involved contract work around quality in STEM programs, especially Out of School Time programs in Omaha, as well as serving as the external evaluator for the NE STEM 4U program at University of NE Omaha.

Sigmon currently serves on the Board for the Heartland Workforce Solutions’s Youth Council, NE Beyond School Bells Network, Metro Science and Engineering Fair, and NE Science Festival.

Education: MA Education Administration and Supervision – Roosevelt University, Chicago, IL
BS in Education –Special Education - University of Tulsa, Tulsa, OK
Mr. Todd Saylor

Mr. Todd Saylor is the Chief, Organizational Development & Innovation. Focusing on “Team STRATCOM,” he has primary responsibility for transforming USSTRATCOM into a more agile, collaborative and cognitive strategic enterprise. He oversees the Command Learning Center employing cutting edge tools and processes to ensure USSTRATCOM is a learning organization. Mr. Saylor is building consensus and facilitating the command’s culture and talent vision. Mr. Saylor previously served as the Joint Staff J7 Force Development Liaison Officer to U.S. Strategic Command providing organizational development solutions from leader development to organizational participation in enterprise-wide development events. He created value networks that improved operational effectiveness and organizational performance through both internal and external relationships.

As a Senior Military Trainer at Joint Forces Command, Mr. Saylor developed and implemented boundary spanning, coalition-based distributed education and training processes and capabilities worldwide to build strong international relationships and enhance security cooperation and regional stability. He also led new initiatives developing leading edge training and education technologies and was in the initial cadre of the Joint National Training Capability.

Mr. Saylor is a retired U.S. Air Force Reserve Lieutenant Colonel and has held positions as Squadron Commander, Transportation Operations Officer, and Aircraft Maintenance Officer. He also held positions as Director of University Development and as Human Resources & Information Technology Manager at the University of Buffalo. Mr. Saylor earned a Master of Arts in Leadership and a Bachelor of Science in Business Administration. He and his wife Cindy live in La Vista, NE.
Mr. Richard Madrid

Richard A. Madrid Jr. is Director of Global Services for Engineering and Computer Simulations Inc. He is responsible for Program Management, Program Execution, Personnel and Oversight for six programs. Prior to ECS, Richard worked for the Uniformed Services University of the Health Sciences, Val G. Hemming Simulation Center. There, he worked directly with the Federal Medical Simulation and Training Consortium (FMSTC), a collaborative partnership whose mission is to enhance the medical education and training practices through knowledge management, common goals and joint training initiatives. The FMSTC worked directly with research and education professionals at the University of California, Los Angeles (UCLA), Center for Research on Evaluation, Standards, and Student Testing (CRESST) to develop tools, templates and methodologies with the purpose of enhancing medical education and training through simulation and technology. He was instrumental in working two Research and Development initiatives directed by the FMSTC.

Richard had a distinguished military career and retired from the United States Air Force as the Medical Program Manager for the Interagency Training Review Organization (ITRO), Directorate of Intelligence, Operations and Nuclear Integration, HQ AETC, JBSA Randolph, TX where he oversaw and reviewed ITRO studies and evaluations and made appropriate recommendations on the $1.2B Base Realignment and Closure (BRAC) training programs. Richard has deployed to several locations in support of Operation Desert Shield/Desert Storm, Operation Sea Signal and in support of the Global War on Terrorism with two Detainee Support Missions.
COMPANY HIGHLIGHTS

- Established in 1999
- Market-leading position in Knowledge Transfer
- Track record with blue-chip customers
- Enterprise-class AVR SaaS Platform
- Global Footprint
To proliferate the adoption of our hardware/platform agnostic AVR software and advance the human-computer interaction through a global network of IDC’s as the engine for creating human 2.0 AVR applications for higher education and enterprise.
TECHNOLOGY DISRUPTION KILLS JOBS
BUT IT ALSO CREATES THEM

Traditional learning methods cannot cope with pace of change
A McKinsey Global Institute report estimates that automation will displace between 400m and 800m people worldwide by 2030, but the report also suggests that automation can create enough new jobs if the workers are retrained.

McKinsey says that countries should invest heavily in retraining workers that need to change careers.

375 million workers who lose their original jobs may need to switch careers and retrain by 2030.

The shift could be on a scale not seen since the transition of the labor force out of agriculture in the early 1900s in the United States and Europe.

Governments, Academic institutions and enterprises need to invest in a new innovative knowledge transfer solutions.
THE GROWING GAP OF SKILLED SMART WORKERS

Lack of skills needed for full-time employment
THE NEGATIVE SCENARIO: AI EMPOWERED MACHINES

Finding Meaning in a World without Work

Most jobs that exist today will disappear within decades.

As artificial intelligence empowered machines outperform humans in more and more tasks, it will replace humans in more and more jobs. Consequently, by 2050 a new class of people might emerge – the displaced & useless class.

People who are not just unemployed, but unemployable

This is not a humane solution.

THE POSITIVE SCENARIO: AVR EMPOWERED HUMANS

Empower 3.8 billion people to grow beyond their current human constraints

EON Human 2.0 Vision is to blend man & machine in a symbiotic partnership;

Democratize access to fast knowledge transfer for everybody on the planet,

Ask the big questions and create new exciting Job opportunities
By 2020, half of the top 50,000 companies will have augmented and virtual reality projects implemented.

Gartner: “Competitive Landscape: HMDs for Augmented Reality and Virtual Reality”
WHAT INDUSTRY STUDIES SHOW

SERVICE TECHNICIANS TRAINING

12 times faster
Cost Savings: 92%
For Shank Adapter Change
SOP using AR Training

OPERATORS TRAINING

2.7 times faster
Cost Savings: 63%
For Oil Rig Operator Training using a Simulator

Source: The diargams are from Atlas Copco's [link](http://en.wikipedia.org/wiki/Atlas_Copco), an EON customer that have implemented VR and AR.
FASTER LEARNING

**BBC**
86% of students in the classroom improved their test results, attention levels doubled to 92% from 46%

**UNESCO**
VR is increasing comprehension, understanding and, especially motivation for learning.

**HARVARD BUSINESS REVIEW**
AR increased productivity with 34% on first use.

**TEMASEK POLYTECHNIC**
Students with VR training had higher mean performance test scores and high levels of self-determined motivation.

**AFRICAN VR SURVEY**
95% rated VR lessons as “good to excellent” and 74% felt “confident” about the learning obtained from VR

**TEXAS INSTRUMENTS**
Case Study 3D lesson provide a 35% increase in test scores, lesson, which normally requires 2 to 3 class periods was taught in just 1 class period.
DEMAND FOR JOBS IN AVR.

- In the first nine months of 2017 there have already been roughly **10,000 postings requesting AR/VR job skills** in the U.S. That’s a relative **increase of 256% compared to 2010**

- The top role involving AR and VR is software **developer/engineer**, followed by **mobile applications developer**, computer systems engineers/architects and other roles.

Augmented Reality in the Real World

**WHO’S INVESTING THE MOST?**
Percentage of executives in each industry who say they are currently making substantial investments in AR, and percentage anticipating substantial investments in three years.

<table>
<thead>
<tr>
<th>Industry</th>
<th>2017</th>
<th>2020</th>
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<tbody>
<tr>
<td>AUTOMOTIVE</td>
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<tr>
<td>TECHNOLOGY, MEDIA &amp; TELECOM</td>
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<td>HEALTH CARE</td>
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<td>RETAIL &amp; CONSUMER</td>
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<td>INDUSTRIAL PRODUCTS</td>
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<td>POWER &amp; UTILITIES</td>
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<td>PUBLIC SECTOR</td>
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<td>ENERGY &amp; MINING</td>
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<td>FINANCIAL SERVICES</td>
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<td>HOSPITALITY &amp; LEISURE</td>
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**ENTERPRISE ROLES...**
Percentage of surveyed developers creating AR experiences in each use category.

<table>
<thead>
<tr>
<th>Service</th>
<th>Manual and instructions, service inspections, remote expert guidance, customer self-service</th>
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<tbody>
<tr>
<td>Service</td>
<td>Quality assurance, assembly instructions, performance dashboards</td>
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<tr>
<td>Service</td>
<td>Product displays &amp; demos, augmented advertising, optimization of retail space</td>
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<tr>
<td>Service</td>
<td>Collaborative engineering, inspections of digital prototypes</td>
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<tr>
<td>Service</td>
<td>Heads-up displays, digital product controls, augmented operator manuals</td>
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<tr>
<td>Service</td>
<td>Job-specific training, safety &amp; security training, coaching</td>
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<tr>
<td>Service</td>
<td>Surgical guidance, quality assurance for buildings</td>
</tr>
</tbody>
</table>

Source: PwC 2017 Global Digital IQ Survey, taken by 2,216 business and IT executives from 50 countries.

November-December 2017 Harvard Business Review
When will AR/VR become mainstream in your organization?

Companies are split on when the technology will become mainstream:
- 46% within the next three years
- 53% after three years (see Figure 1).

“The impact will not only improve in the next one to three years, but it will also become standard in the automotive business,” says Frantisek Zapletal, Volkswagen IT.

Figure 1. When will AR/VR become mainstream in your organization?
AR ASSIST - AVIATION

AVR solution for staff on-site for SATS, a leading provider of gateway, cargo and security services at Changi airport in Singapore, has selected EON Reality AVR platform to enable interactive AVR solutions for ramp workers to enhance safety, worker capacity and productivity.
THANK YOU