NEW AGE DIGITAL TECHNOLOGIES
for Improved Training, Process and Performance in Manufacturing

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Workforce Engagement

Today’s young professionals have grown up with the latest mobile/digital technology, making it necessary to adapt their training in order to engage a hyper-connected younger generation of workers. To do this, digital transformation must become an integral part of new operating models and talent strategies including digitally-enabled workforce across the industries of Engineering, Manufacturing, Aerospace, Construction, Healthcare, Pharmaceuticals, Medical Devices, and Oil & Gas.

Digital learning platforms build a more desirable work environment and increase efficiency and productivity of the workforce while meeting the learning on their terms.

Changing Workforce Demographics

Many millennials believe the offshore industry is not a top choice for employment as it lacks innovation, agility, creativity, and meaningful work. Furthermore, multiple trends are driving a global shortage of talent in manufacturing because it takes several years to train new grads. As a result, digital innovation, coupled with new asset portfolios, will require companies to create new or redefined manufacturing roles.

Digital Training Attracts and Engages

• Connecting learning with employee goals and expectations is a powerful way to build engagement.
• Employees are engaged when they feel passion for their work and organization.
• New technologies play an essential role in talent acquisition and growth of the digital-savy iGen.
• Exploration and development will be transformed by edtech allowing operators to do more with fewer manufacturing technicians.

Digital Technologies Trends

AI, robotics and wearables are the fastest growing technology expected to facilitate multidisciplinary work and efficiency.

Top benefits are:
• Increased employee productivity
• Better real-time decision-making
• Increased training engagement
• Better asset management
• Accelerated knowledge-sharing
• Improved accuracy and reduced risks
• Substantial cost savings

Augmented Reality

AR can augment physical and cognitive processes through over-the-air expert support onshore. It provides accurate information to technicians and enables proactive decision-making and visual instructions to remote experts in real-time.

Use Cases

• Asset Management
• Safer installations and operations
• Training, operating and fixing complex equipment
• Remote expert support
• Testing and inspections
• Product design and manufacturing

Virtual Reality

In simulating high-risk environments and experiences, VR offers better employee engagement and safety. ‘Digital twins’ can replicate the performance of an oilfield, refinery, or any other operational unit on a virtual platform.

Use Cases

• Virtual Tour of Worksites
• Safety procedures
• Complex Manufacturing Assembling
• Emergency situations preparedness
• Maintenance and Troubleshooting
• Lean Manufacturing Process
• Testing and inspection
• Analyzing project designs
• Product design and manufacturing
• Disaster management
• Decommissioning operations

Artificial Intelligence

AI is increasingly used to track individual field workers to automate resource scheduling and support safety monitoring.

Use Cases

• Improve overall skillset and work experience
• Integrate assets and ways of working – impacting human and machine.
• Automate talent management
• Automate training and skills certification
• AI in combination with AR
• Advances personnel scheduling
• Financial and safety auditing automation
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