Governing Energy

Augment Your Reality

"Perception is reality!" A well-known phrase that has merit. One of the challenges of a compartmentalized society where groups in a tribal sense take certain positions and denies the reality of other group perceptions is finding the actual reality.

Human behavior being what it is, one sees where Heisenberg's Uncertainty Theory is at work—the very act of measuring changes the *real* quantum state.[i] However, when it comes to field operations, incorrect perceptions can be deadly.

When a field technician arrives on the job site, he or she has a set of tasks to perform. After the Job Safety Analysis (JSA) is completed the work begins. Hopefully, the tech has the right tools, access to "as is" drawings, manuals, parts, etc.

If one or more is missing or mistakes are made additional rework is the minimum required. However, in some actual cases equipment has been assembled incorrectly resulting in millions of dollars in losses. In other cases, fatalities have been the result.

Moreover, the industry is on the cusp of another major transformation by the Internet of Things (IoT), the massive data from thousands of sensors.[ii] Field personnel run the risk of being overwhelmed with data and information.

This type of additional stress can increase the risks and create more mistakes even though the goal is to mitigate risks and error rates. Technicians will need additional tools to help with this current version of "information overload."

Fortunately, inexpensive and easy to use Augmented Reality (AR) tools are readily available. The Harvard Business Review defines Augmented Reality as, "A set of technologies that superimposes digital data and images on the physical world."[iii]

AR enables field personnel to manage this massive amount of data in a way that helps their perception better reflect the actual situation. This is often referred to as "Situational Awareness," particularly by the aerospace sector.[iv]

This writer among others has written extensively about Operational Excellence (OE) and the economic value available to those organizations that successfully transform operations. IoT business models drive a convergence between Information Technology and Operational Technology (IT/OT).[v]   Expect Augmented Reality to play a major role assuring OE.

How Much Augmentation Does Your Organization Need to Assure Operational Excellence?

Free [Economic Value Proposition Matrix](#) version 2.0 (realize the value of your investment)
Also, checkout our [YouTube Channel](#)

Additional details are available from the author.

About the Author

Dr. [Scott M. Shemwell](#) has over 30 years technical and executive management experience primarily in the energy sector. He is the author of six books and has written extensively about the field of operations. Shemwell is the Managing Director of The Rapid Response Institute, a firm that focuses on providing its customers with solutions enabling Operational Excellence and regulatory compliance management. He has studied cultural interactions for more than 30 years—his dissertation; *Cross Cultural Negotiations Between Japanese and American Businessmen: A Systems Analysis (Exploratory Study)* is an early peer reviewed manuscript addressing the systemic structure of societal relationships.

End Notes

[i] https://en.wikipedia.org/wiki/Uncertainty_principle

[ii] http://www.pennenergy.com/articles/blogs/governing-energy/2017/12/iot-fever.html

[iii] https://hbr.org/2017/11/a-managers-guide-to-augmented-reality

[iv] https://en.wikipedia.org/wiki/Situation_awareness

[v] Shemwell, Scott M. (2018, March 28). Implementing Digitalization: A Game Changing Transformation of the E&P Sector. 2018 International Petroleum and Petrochemical Technology Conference. Beijing, China.