

Governing Energy

Importance of Common Nomenclature

Volume 5 Number 18—September 22, 2016

Unfortunately, I recently had to have a tooth extracted. No big deal, but certainly not on my bucket list.

One point of relevance to this discussion revolved around a bit of confusion between myself, my dentist who was on vacation when the original incident that required its removal happened, his partner, the endodontists and finally the oral surgeon. Sound familiar?

As a user of dental services, I was dealing with three different independent legal entities, each of which was sharing and/or developing its own data regarding this medical decision. As a layman I was feeling soreness that appeared to be on one particular tooth; however, the data analysis by the experts (the dentists) indicated it was the adjacent tooth.

Many know that sometimes dental discomfort can have a phantom pain effect that is felt in a different place than the source of the issue.ⁱ Additionally, a patient is often not the best one to diagnose an active medical condition.

Listening to four different dentists and their various staff who used the same medical verbiage consistently, I misunderstood them completely. In essence their technical jargon used the same word that my lay jargon told me was a different tooth than the one they were referring to.

While I am sure the experts would have performed the procedure on the correct tooth, it was reassuring to get this resolved before the extraction process began—my peace of mind! All's well that ends well.

In our work on Operational Excellence and Asset Integrity Management, we have developed the construct of **Interdisciplinary Common Vocabulary (ICV)**. Most recently, this was mentioned earlier this year in the context of new methods of knowledge management.ⁱⁱ

In any complex environment involving a number of individuals with different skills and diverse yet interrelated tasks with a substantial amount of documentation, the opportunity for error magnifies with each additional individual added. This is the so-called *network effect*.

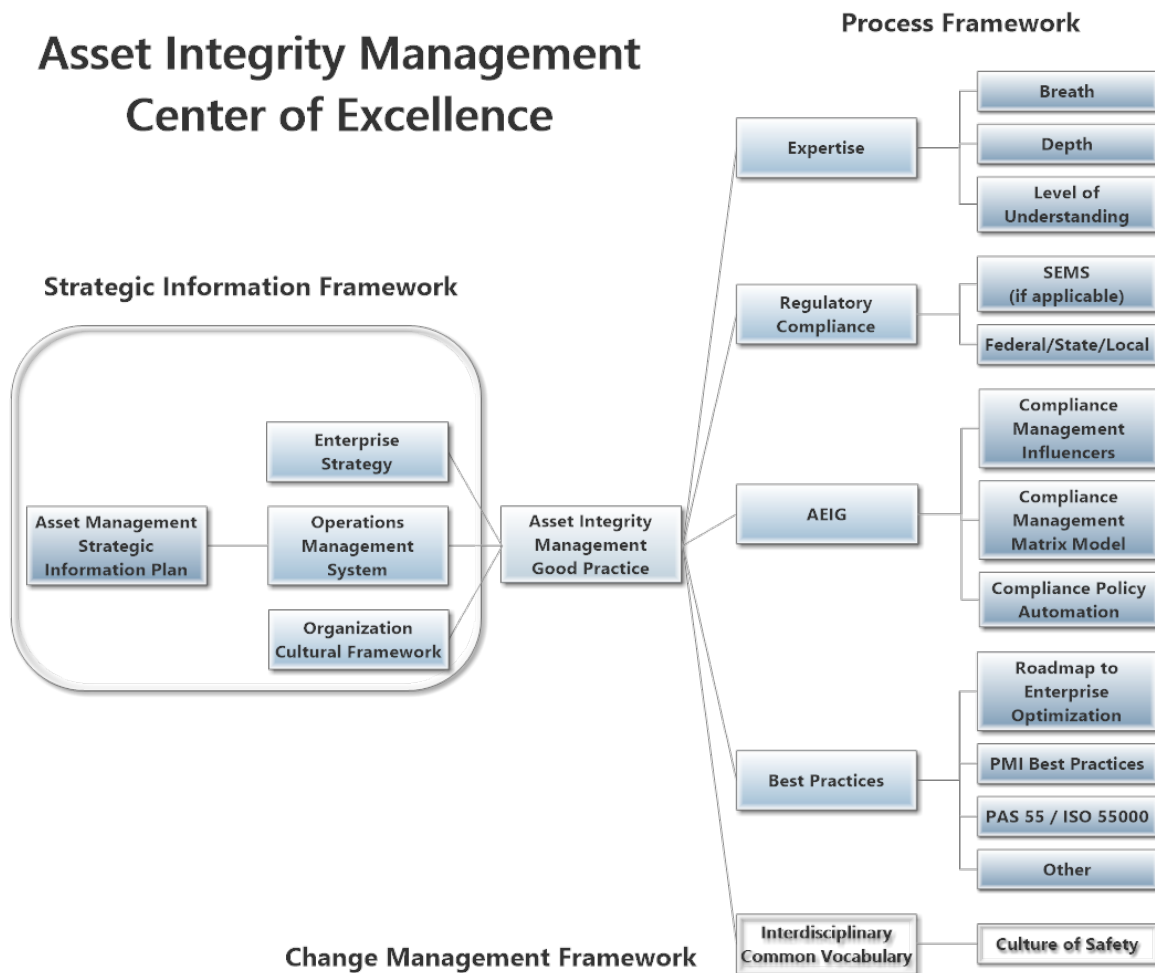
Often expressed mathematically as $n*(n-1)/2$, or factorial of n .ⁱⁱⁱ This suggests that for each individual added to a discussion the opportunity for miscommunication grows very quickly. Factorial grow faster than exponential variables.^{iv}

For example, when two individuals engage the likelihood of miscommunication is mathematically zero for one communication. When we add a third person the likelihood is six for three discussions among the group. When the group expands to four (the number in my dentist case), the likelihood of miscommunication grows to 24.^v

Imagine what the likelihood of miscommunications when over 1,000 individuals are working on a project! An ICV is one tool to mitigate this issue.

In 2002, investigations into a nuclear power plant reactor pressure vessel degradation showed that a root cause was a weak safety culture. Subsequently, as part of initiatives to increase the Safety Culture in that sector, a series of workshops resulted in the release of the 2014 United States Nuclear Regulatory Commission manuscript, Safety Culture Common Language.^{vi}

Following a 2011 survey titled, Integrity Management: Issues & Trends Facing the 21st Century Energy Industry, we developed the Asset Integrity Management Center of Excellence as shown in the following figure. It is important to note that ICV plays a key role in the Culture of Safety.



Sharing a common nomenclature is not just critical for Safety but it is essential if the firm is to attain World-Class Operational Excellence. As we have shown it is true for small groups and very important in critical infrastructure sectors where large disparate groups are common.

Does Your Organization and Your Supply Chain share an ICV?

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 Excellence. 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 social relationships.

End Notes

ⁱ <http://www.dentalfearcentral.org/forum/showthread.php?5587-Phantom-Tooth-ache>

ⁱⁱ Shemwell, Scott M. (2016, July 20). [The New Knowledge Management Normal](#). *Governing Energy*. PennEnergy.

ⁱⁱⁱ <http://www.secretgeek.net/miscom>

^{iv} <https://answers.yahoo.com/question/index?qid=20080619104827AAFxdk4>

^v <http://www.secretgeek.net/miscom>

^{vi} <http://www.nrc.gov/docs/ML1408/ML14083A200.pdf>