Donald Rumsfeld famously identified three classes of knowledge: known knowns, known unknowns and unknown unknowns. The three knowledge classes map surprisingly well onto requirements knowledge but are all outside the scope of this panel. Our focus is on what Rumsfeld missed: unknown knowns. In RE terms, an unknown known is knowledge that a person (say, a customer) holds, but which they withhold (say, from a requirements analyst). They may withhold the knowledge deliberately for some perceived personal advantage. They may withhold it accidentally, perhaps not realizing the value of their knowledge. They may strive to share the knowledge but end up withholding it because they are unable to articulate it. Or it may be knowledge they don’t even realize they hold. In each case, the unknown known fits at least one of several definitions that exist of tacit knowledge (TK).

The study of tacit knowledge has its roots in Polanyi’s seminal work [1], and is inherently interdisciplinary, although much of the work is rooted in linguistics. In requirements engineering, tacit knowledge has long been recognized to pose a problem since eliciting knowledge from a customer can be confounded by any of the factors listed above. However, tacit knowledge is also essential to requirements engineering (and probably to every other enterprise) because of the economy of expression it affords actors who share an understanding of the tacit knowledge that forms part of their domain of interest.

In this panel, we will explore the various dimensions and definitions of tacit knowledge and try to answer a number of questions, including: Of the various definitions of tacit knowledge that exist, which are most useful for understanding elicitation problems in requirements engineering? Can we classify tacit knowledge in a way that provides practical help to requirements engineering practitioners? Can we detect the presence of tacit knowledge, perhaps using tools? Is there a relationship between tacit knowledge and requirements defects?

REFERENCES