Introduction to the Intelligence Articles

By Bob Krone

Although there is no agreed definition of intelligence, and there are many alternative definitions across the sciences, we can accept the generic definition of "the ability to acquire knowledge and skills" as a founding starting point.

Space research and development over the past seventy-five years has continually added machine intelligence and cosmos intelligence information and applications to the world. Those additions now, in 2021, have elevated the subject of intelligence to the critically important category for current and future science and technology.

For that reason, we have intelligence articles as features in this issue of the *Journal of Space Philosophy*. We have included the Robert M. Krone 1982 book chapter, "Advanced Machine Intelligence and Society" as a forty-year ago baseline for both machine intelligence (artificial intelligence [AI] is the simulation of human intelligence in machines) and cosmic intelligence. For current comparisons we have included the Downing and the Hayut-man articles.

These articles barely touch the huge depth of theoretical information and practical/operational information now available. For instance, subjects like artificial general intelligence; virtual simulation; collective superintelligence; singularity; artificial intelligence (AI) solutions; brain modeling; AI analytics in business, management, medicine, the military, etc.; AI software for an infinite number of real-world applications; nanotechnology; and accelerating technology change for solving societal problems are examples of subjects in the literature, but they are not examined specifically in these articles.

The overall question our articles leave us with is: "If this is one comparison of the last forty years of advances in human, machine and cosmos intelligence, is our current intelligence capable of projecting the next hundred or thousand years?"