Space Business and Management

By Thomas H. Olson

Having spent a career teaching and consulting Business and Management in higher education, I find the challenges for human settlements in Space, documented in *Journal of Space Philosophy* publications, reasons for a re-examination of higher education curricula for Business and for Management. The following statement of Professor Yehezkel Dror, founder of The Policy Sciences, in his Chapter 5, "Governance for a Human Future in Space," in *Beyond Earth: The Future of Humans in Space* (2006), edited by Robert M. Krone, is a perfect summary of the need:

> Dreaming about the human settlement of space that leads to realistic visions increasingly shared by humanity as a whole, and by influential elites in particular, is essential for making human movement beyond Earth a reality. Systematic and realistic thinking on how to accomplish such realistic visions is a next essential step, to be followed by modular implementation. On all these levels much attention needs to be given to governance, because without restructuring governance, the movement of humanity into space will remain a dream or, even worse, may take the form of nightmares becoming a dismal reality.[1]

And the Kepler Space Institute's (KSI) proposed Space Philosophy, in Dr. Krone's article 8, of the Fall 2012 *Journal of Space Philosophy*, titled *Space Philosophy: Lessons from the Past – Visions for the Future,* provided me additional motivation for this article. That philosophy is summarized as:

> *Why Reverence for Life within Ethical Civilization?*
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> 1) Reverence for life is the foundational purpose that will sustain humankind in perpetuity. 2) Ethical civilization will be the environment facilitating that end. 3) The Policy Sciences hold the solutions for creating ethical and successful civilizations. These are the three essential foundation blocks of *The Philosophy for the Space Age*. Building these three basics will produce the highest probability for successful Space exploration, development, and human settlements, plus the capture of Space resources for humankind's needs on Earth and in Space within *The Law of Space Abundance*.[2]

And Dr. Krone's article in this issue of the Journal, titled *"Utopia: Space Philosophy and Reality"* is further clarification of 1) radical needs, 2) Space resources, and 3) the huge

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[1] Robert M. Krone (ed.), *Beyond Earth: The Future of Humans in Space* (Toronto, ON: Apogee Books, 2006), 45.
[2] Robert M. Krone, "Philosophy for Space: Learning from the Past – Visions for the Future," *Journal of Space Philosophy* 1, no. 1 (2012): 17-18.

gap between humanity's management history and the philosophy and visions presented.

For this article I accept the philosophy and visions KSI has presented to date as the optimum for successful Space exploration, development, and human settlement. Feasibility analysis for those visions I will leave for others. My purpose, given that assumption, is to itemize the categories of Business and Management university curricula that will need radical alterations to commit fully to those visions.

And for this short article I will also merely list those academic subjects for which new definitions, tools and practices will be needed:

- Information technology and management.
- Leadership: especially moral and ethical leadership.
- Boards of directors: design, management, and process.
- Business and management methodologies.
- Human resources management.
- Human and machine advanced intelligence research.
- Research across the business and management fields.
- Biological, psychological, and neurological research and health care.
- Entrepreneur performance evaluation.
- Environment analysis.
- Profit and cost-benefit analysis.
- Strategic planning & management.
- Investment, equity, & debt: short-term & long-term.
- Decision and management processes.
- Markets and growth.
- Financial systems and financial feasibility.
- Economics: Production, distribution, and consumption of goods and services.
- Project management.
- Capturing, managing, and applying brainpower.
- Forecasting and contingency planning.
- Business and management consulting.

Readers will immediately grasp that I am providing here a heuristic first listing of business and management subjects needing re-thinking and that those subjects are illustrative of the major subjects of traditional university Business and Management degree programs. And returning to the writings of Yehezkel Dror, it is clear that successful human transitions to Space cultures will require radical changes in existing government, business and management. Re-thinking for those changes must fit the "*Breakthrough Thinking*" criteria[3]. They will also require huge intellectual and brainpower inputs, as is now well documented within the Space literature.

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[3] I am fortunate to be on the Faculty of the University of Southern California, which has been a pioneer for *Breakthrough Thinking*, particularly by Dr. Gerald Nader, President of the Center for Breakthrough

I am pleased by the vision of the leadership of KSI to create the first Space University in the United States to address these business and management challenges along with the other science, technology and education challenges.

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Editors Postscript: We are grateful to Dr. Olson for giving us the first article in our Journal of Space Philosophy issues to acknowledge the business and management education tasks to be addressed. We study philosophy to find the best reasons for humanity's move to Space. Governance, Business and Management will be the tools needed to accomplish the transition to the Space Age effectively and efficiently*. Bob Krone and Gordon Arthur.*

Thinking and Chair Emeritus of engineering Management at the University of Southern California. See his book, co-authored by Shoo Hibino, PhD*, Breakthrough Thinking: The Seven Principles of Creative Problem Solving* (Roseville, CA: Prima, 1998).