We Need Another Sputnik Moment!

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We Need Another SPUTNIK Moment!

Panelists:

Jack D. Becker, Co-chair, University of North Texas, Board member, SIM DFW Chapter

Mary Sumner, Co-chair, University of Southern Illinois—Edwardsville, and SIM, Academic Liaison

Michael Brooks, Pres. Boston SIM Chapter, Regional Account Executive, Kforce Technology Staffing

Praful Mainker, Sr Manager, PMO, Capital One Home Loans, Chair DFW SIM Chapter Educational Initiative Committee

Jerry Luftman, Professor and Managing Director, Global Institute for IT Management, past SIM, Academic Liaison

ABSTRACT

The need for a qualified workforce in information technology and the broader science-technology fields, referred to as STEM (Science, Technology, Engineering and Mathematics) has reached crisis proportions. Native born U.S. students are not entering the STEM fields in college in sufficient numbers to avoid an impending technology-talent shortage. University enrollments are dwindling in the STEM fields, which have been propped up by admissions of non-U.S. students from countries like India and China. Companies such as Microsoft and IBM have recognized this for a long time. Professional societies like SIM and AIS, while keenly aware of this problem, are perplexed about how to proceed. This panel of industry, academic, and professional experts will attempt to lay out issues that face these fields and our country. We will seek to engage the audience in issues which stretch from grade school to graduate school, prompting us to exclaim, “We need another Sputnik moment!”

OVERVIEW

The U.S. Department of Labor identified information technology as “the fastest growing sector in the economy…” Two out of three Federal agencies listed information technology as a mission-critical occupation due to overwhelming increase in demand. Couple this information with the declining enrollment of students entering a degree field of study related to information and communications technology (ICT or for purposes of this study simply IT or IS for Information Technology or Systems) and the rapid retirement of “baby boomers” from the technical workforce; the United States is facing a major crisis in the near future.
A study conducted in Texas found that college readiness is an issue that must be addressed in the middle school and elementary or student performance in high school will be limited. This group also noted that the low-income families do not see college degrees as realistic and that parent involvement must be engaged early to help a child reach full potential.

A group of concerned IT professionals in the SIM organization, both practitioners and academicians, is rethinking this problem. The solution will take a concerted effort at the local, State, and perhaps, the national level. The panel will examine several key components identified as possible factors contributing to the success of this initiative:

1) Collaborative leadership that involves business/industry within the educational planning process. The Society for Information Management (SIM) with nearly 3,000 members worldwide has committed to assist with this project;

2) Transformational planning reaching into the very fabric of the current K-12 educational system;

3) Family outreach programs;

4) Early advanced credit options for postsecondary credit;

5) Innovative technology courses and curriculum;

6) IT/STEM educational pathways that address 6th grade through postsecondary-level degrees and/or the IT/STEM workforce;

7) Professional training for instructors and counselors; and

8) Summer career camps for 5th, 6th and 7th graders and IT/STEM marketing campaign in English and Spanish are but a few examples of far-reaching approaches they may need to be undertaken.

Some may faintly recall the technology race that began on October 4, 1957 with the U.S.S.R.’s successful launch of their Sputnik space satellite. That event, like the earlier “shoot heard around the world” at Concord, ignited the U.S. population into a fervor that propelled the U.S. to regain the technology lead in the “space race”, during the Cold War, and led to the successful U.S. Apollo 13 landing on the moon in July, 1969. In order to reignite our education institutions we may indeed need another “Sputnik moment!”