

A Convergence Science for Today's Problems

If you haven't read "[A Convergence Science for Today's Problems](#)," reported in *The Chronicle of Higher Education*, August 14, 2011, stop what you're doing and take a look at it. The crux of Mr. Katsouleas' idea is that breakthroughs solving significant societal problems have been accomplished through an integration of disparate science disciplines. "The essence of successful convergence science [interdisciplinary research] is that it is driven by clear societally motivated problems, like the Grand Challenges, that no single discipline can resolve." This is not just for the hard sciences. "Successful convergence science cannot limit itself to crossing just science and engineering boundaries: It also requires a broad understanding of economics, human behavior, public policy, and more."

If unreliable financial reporting is not a significant problem, no problem is significant. Hyperbole? A bit. But what isn't hyperbole is that a solution to unreliable financial reporting will require interdisciplinary research. Although most accounting researchers, to some degree, integrate disciplines in their efforts, what Mr. Katsouleas means by interdisciplinary research to solve significant problems is different. It's not just integrating related disciplines like finance and accounting, for example, to solve the financial reporting problem, but combining disciplines that may not, at first blush, seem to be related. From my perspective, a part of the puzzle to solve the financial reporting problem is combining formal logic and accounting -- the type of formal logic that Bertrand Russell would recognize as mathematics.

The Financial Reporting Problem

Consider Mr. Katsouleas' comment: "The solution lies at the intersection—think of a Venn diagram—of the feasible, viable, and socially desirable. Feasibility encompasses the core technology of the innovation or solution, while viability pertains to the ability to produce or scale the solution cost effectively, and desirability relates to the collective and individual behavior that determines whether the innovation will be embraced and adopted. No innovation succeeds that does not at once satisfy those three requirements."

Let's apply these ideas to the financial reporting problem. The FASB/IASB proposes following previous efforts to develop a conceptual framework. Current FASB/IASB goals, similar to previous goals, have called for a sound foundation for its conceptual framework and, by extension, accounting standards. Soundness has a technical, scientific meaning; mathematically and empirically tractable. But if mathematical science offers part of the solution, few accounting academics understand its value.

Here is an interdisciplinary opportunity to advance the accounting profession. But solving for a sound conceptual framework is merely part of the overall solution to the financial reporting problem. In Mr. Katsouleas' terms, the feasibility and viability seem mathematically tractable. The desirability is yet to be solved. Consider the following interdisciplinary opportunity and what is missing that your discipline(s) could complete:

"A Sound Foundation"/Abstract:

In the wake of recent economic crises and the expanding pace of global business, the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB) are under pressure to improve and converge accounting standards. They expect a conceptual framework (CF) will advance the development of worldwide accounting standards and comparable financial reporting. The IASB-FASB joint CF project has as a goal the creation of a sound foundation for accounting standards. But, how will they know the goal is satisfied? “A Sound Foundation” offers CF authors and users a verifiable, rigorous decision process to assess whether the objective is accomplished. The research report, “[A Sound Foundation](#),” is free online at the Social Science Research Network.

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