## John Tsitsiklis INFORMS Saul Gass Expository Writing Award, Acceptance speech Houston, Texas, October 2017

This occasion is a great honor, especially as I look at the list of past awardees, with so many people that I admire. Let me take the opportunity to offer some thoughts.

A first piece of advice is that it helps to act insecure. Never take for granted that your reader automatically understands what you are trying to say. Never assume that they can decode your possibly unclear pronoun references, or instantly reconstruct the four lines of simple calculations that you are omitting.

Another piece of advice is to watch the masters. My very first coauthored paper was with Christos Papadimitriou. There I learned that one must strive to be crisp, to generate a document that moves fast, along a shortest path, that develops the main insights through stimulating sentences, evocative statements, puns, and even some gentle reader intimidation.

But a big fraction of my writing was together with another master of the trade, Dimitri Bertsekas, to whom I have been immensely grateful. I learned from Dimitri that the single most important decision is about what to include and what to omit. First pin down the one or two key concepts and results that you want to convey. And then build them up through a simple story that moves on methodically and linearly. In the process, avoid the temptation to present every detail that you find interesting, avoid the temptation to become encyclopedic. Instead, choreograph a ballet that multiplexes the big picture and the necessary details, encapsulating the whole in an insightful picture whenever possible.

On the flip side, there is a responsibility towards those who come after us. I wish there were a magic bullet here. One can always give a student a couple of examples of well written papers, then give them a document that spells out the rules of good writing, and hope for a miracle. Unfortunately, it is more complicated. Working with coauthors especially students, to revise, rewrite, remove redundant sentences, reorder and linearize the presentation, keep asking why is this sentence here, why does sentence B follow from sentence A – all this can be pretty exhausting and drag on for months, but it is worth it. At some point, you feel the phase transition, that you finally have a document that flows serenely, like a canoe on a quiet river. Not easy, but even if it happens only occasionally, it is most rewarding.