

Historian's Column

Anthony Ephremides



Even Historians dream sometimes. I know. They are supposed to only report on cold facts. But, they are human too, and sometimes they indulge in their weaknesses.

So, the other day, I had a dream! No, I am not trying to emulate Martin Luther King. My dream was so puny compared to his. But, I did have a dream. As it is mid-summer when these lines are written, this was a true Mid-summer Night Dream. Like Felix Mendelssohn's musical dream, think of it starting as a whisper and gradually strengthening to its apex and then quietly receding back to a whisper and into oblivion.

As I looked back over 50 years of being part of the Information Theory Community, I saw images of the past. I saw people like Fano, Elias, Cover, Massey, Wolf, Pinsker, Dobrushin, and many others who more or less "defined" our Society and who are no longer with us. I did not even think of Shannon. He is outside our grasp. Then I saw images of the present, people like the standard-bearers whom we know so well, and so many others, too many to name. I saw these people and I vividly remembered their aura, their comments, their humor, their sense of values. They illuminated the darkness of my dreaming. Those who are amongst us, continue to enrich our subject of interest with their contributions, and still radiate their wisdom and class. I was wondering why these visions of the past (and present) were dominating my thoughts.

The dream evolved. I saw images of the future. I saw some talented young people who were emerging from the sides of the stage, as it were, and timidly were wondering whether they were worthy of the founders and the contributors who were bigger than life as they looked over them. They were wondering what it was that would make them worthy of entering this wonderful pantheon. Would it be distinctions and awards? Would it be giving speeches and getting applause? Would it be carrying banners of different causes?

My dream tuned into somewhat of a nightmare. I saw suddenly some people pushing each other and vying for position. I saw them planting unrest and discord. I saw them looking at indices of success as measured by numbers of papers published or grants awarded. I even saw them shedding the legacy of the founders on the side. They were ambitious. They were looking for opportunity. They were seeking dominance. They wanted to rise to the top.

What was going on? What had happened to the purity and dedication our elders had taught us? Even they had their little spats and disagreements (like the debate on stargazing and navel contemplation) but always with civility and mutual respect. This was a real nightmare. I went into a denial mode. No, this cannot possibly happen. This Society always had the highest standards of quality, fairness, and commitment to excellence. Is it possible that something terrible happened? Why was I having this awful dream?

Suddenly, it dawned on me. The field has changed. Times have changed. There have been new developments in technology and in the public perception of our field. What with AI, with Big Data, with Machine Learning? How could our Society catch up with

those? Were we oblivious of what was happening? Had we drifted astray? Did we let our predecessors down? No, it cannot be! This Society was blessed with a singular legacy. Its name is **excellence**! So, it should be easy to adapt.

Indeed, the dream drifted into a different mode. I saw most of our members shaking off the lures of the sirens of easy success. I saw them tossing aside those who had tried to push them into extraneous endeavors. I saw a resurging of pride and optimism. I saw the clouds of discord dissipating. I felt like Faust who in his moment of epiphany shames Mefistofele into oblivion. Quoting from the libretto of the relevant opera by Boito, the devil's words are "taci, guarda", which means, "quiet, watch" (referring to the opening of the skies and the appearance of the divine light). To which Faust answers inspired by this moment of epiphany, "Arrestati, sei bello", that is, "Stop, you are beautiful"! What a feeling of liberation! The malaise of the nightmare was lifting. What joy! The clouds seemed to part and reveal Shannon's face again, serene, kind, and reassuring! Now, this was real catharsis.

I could not shake off the impact of this dream. Was I getting too sentimental? Was I imagining things? Had something really happened? Something terrible? Something transformative? One of the definitions of the word "transformative" is the process of a cancerous cell taking over a healthy one. But, there is also another meaning. It is the process of an amorphous and undefined entity acquiring a new and dominant profile, which changes completely its previous condition.

I tell you! It is good to dream, occasionally. It can have curative effects. It can push aside disturbing events. It can escape the haunting effects of discord. It can turn one's attention to the rising sun. It can lower your blood pressure. It can assure you of the goodness of fate and destiny. It can reinforce your faith in the good forces of nature.

For a historian, dreaming is also an escape from harsh reality. It allows a detachment from awful developments. It permits seeing beyond them and detecting glimmers of hope in the darkness. It can boost the faith in the forces of good. It can confirm that the laws of nature simply ensure that in the end only what is good and right prevails.

I hope the readers pause and wonder what made a mature historian get into this mode of dreaming. Was it phantasy? Was it too much white wine? Was it indigestion? Was it perhaps the distillation of recent events that shook him up?

We will never be sure. But, such a dream, even if it borders to a nightmare, in the end it heralds hope and faith in the soundness of the solid roots of our Society and the healthy stock that was bequeathed to us that nobody can corrupt.