

Radu's Rides: Pseudo-random Summer Thoughts

Contributing Editor Radu Craiu (University of Toronto) took the opportunity to reflect during his “summer intermezzo”:

Constrained by circumstances, this was a summer of relative stagnation, at least in terms of spatial displacement. Toronto being the lovely city that it is, I still managed to get a tan and produce some random thoughts vaguely related to statistics. Not having a vacation also meant that I got to think about past ones and, to no one's surprise, I started daydreaming not about concrete jungles and modern means of transportation, but rather places and objects that seem to have traveled (forward) in time. It's not the fast trains, the internet speed, or the height of buildings that move me during summer intermezzos, but rather the artistry of the past and the (almost) forgotten crafts that were used to build and adorn a city like Venice. There is a wealth of know-how buried in that lagoon and there is a lot of careful thinking, both theoretical and empirical, that led to what stands above ground. Especially there, within the enormous constraints those artists had to deal with (water, shifting ground, some wars, the plague, more water) I find some similarity with our own profession.

Working under constraints is well-known to statisticians who often must navigate data shortcomings, modelling challenges, theoretical conundrums, and computational mountains. This is not recent and is not going away. In many ways, our ideas were developed under historical constraints that enriched our arsenal and today bring us closer to the artisans of yesteryear. Sure, the black boxes of today have liberated thinking and modelling to the point one feels sometimes like they were kidnapped, and have increased the production of algorithms and specialized applications to levels that appear intellectually unsustainable. However, there is more than nostalgia that redirects me to statistical thinking and its enormous value to some of today's problems. I am convinced that when the need for building a new “intellectual Venice” will occur, statisticians will play an important role in saving the day. Constraints will always exist, whether we like it or not, so those who grew up thinking of them will be useful. So, whenever your reasoning seems trumped by the latest wave of artificial intelligence, remember the artisans of yesteryear and wait for time to tell the truth.

The reason Venice popped in my head is due to its hosting of the ISBA World Meeting in July (<https://www.unive.it/web/en/2208/home>). Speaking of working successfully

under constraints, the University Ca'Foscari of Venice was a lovely host to a large group of Bayesians. When one witnesses a successful conference, there are always lingering questions closely related to envy: Can this be replicated here? How did they do it so well? Before you shout, “Venice, duh!” note that having a beautiful setting is not enough, as one could easily envision situations where the outside looks better than the inside and the proceedings are left desolate. Behind every great conference there is a magic mix that is hard to dissect but is easily recognizable, and ISBA in Venice had it. It certainly helped that Italian cuisine and those tiny, delicious, espressos were available during lunches, that the organizers went to great lengths to secure childcare options for the participants, or that a diverse and interesting program properly reflected the many facets of a thriving Bayesian community.

Since we don't teleport anywhere yet, I still had to deal with airplanes and carry-on suitcases. There is not a single recent flight I have been on where the latter can still fit in the former. This seems to be a problem whose solution should be the offspring of geometry and statistics. It also makes one wonder where else in society decision makers should have a solid grasp of statistics, or at least be aware of what statistics can do for us. Speaking on behalf of all those stuck in endless traffic jams in cities that are subjected to simultaneous repairs and constructions, I must say that an urban planner without statistical training is a living, breathing danger to their fellow humans. Similarly, the head of any public transportation network needs to understand that efficiency and stochasticity are two sides of the same coin, and one cannot be achieved without understanding the other. These are obvious demands, but it is not hard to make the case that hospital managers (in fact, managers of any large institution where there is a flow of goods going in and out: ski/beach resort operators, event organizers, the list goes on) must all know statistics or a statistician who can help them with the chaos. Teaching some stats in business schools notwithstanding, I am going to end by repeating what I wrote elsewhere: the minds of future leaders must be captured by statistics at an early age, probably before high school ends, so that by the time they need to deal with whatever stinky matter hits the fan, they have already developed the reflex to reach out to statistical tools to clear the air.

It takes more than a beautiful venue like Venice to make a successful conference...

