Communication about professional statisticians within and outside the profession: key messages to key audiences

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There is massive ignorance in the community about statisticians and Statistics, let alone the need for professionalism in the practice of Statistics. Some of it is almost deliberate (e.g. the chemist and physicist Ernest Rutherford, "If your experiment needs statistics, you ought to have done a better experiment"; or the geophysicist Fred Vine, "I never touch statistics. I just deal with the facts"), but for the most part it simply reflects a failure of education systems around the world (both school and university), and the failure of statisticians in publicising the essential nature of their work. As a consequence, others are invading statistical territory, sometimes to the great detriment of the people with the data. Statisticians are the people best placed to know why Statistics is important, and with the greatest awareness of the perils to society of poor statistical practice. So it is incumbent upon us, as a profession, to find the best ways to communicate this information. We need to act professionally, not just in the practice of Statistics, but in how we go about ensuring that this communication is done well. Effective communication will necessarily involve engaging professionals from other areas, not least, from Marketing. As promoters of our discipline, we have a long and proven track-record as being ... terrible. At a most trivial level, all the sexy terminology comes from invaders – Big Data, Data Mining, Artificial Intelligence, Machine Learning, Neural Nets, ... to take but a few examples. And how do we counter this? Large and Complex Data Sets. Multivariate Analysis, ... What should we be doing, with whom, to whom, and how?

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